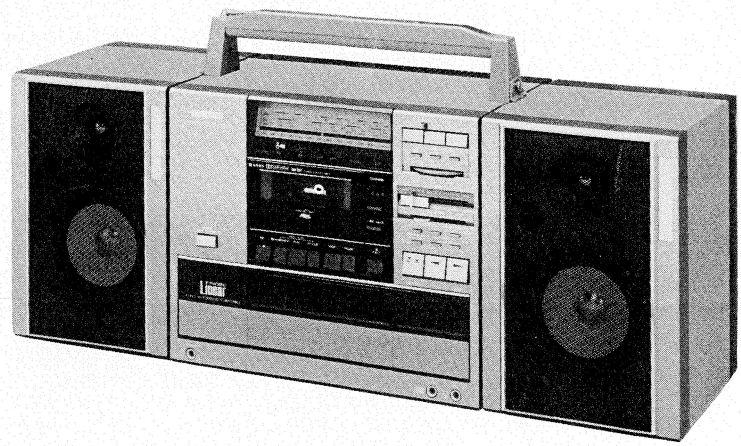
JVC

SERVICE MANUAL

MODEL
DC-7/DC-7L

PORTABLE STEREO
DISC CENTER



No. 2654
FEB. 1983

Safety Precaution

1. The design of this product contains special hardware, many circuits and components specially for safety purposes.
   For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list in Service manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and/or the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard.
   When service is required, the original lead routing and dress should be observed, and they should be confirmed to be returned to normal, after re-assembling.
5. Leakage current check
   (Safety for electrical shock hazard)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the Products (antenna terminals, knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5 mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1500 Ω 10 W resistor paralleled by a 0.15 μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.).
     Measure tha AC voltage across the resistor with the AC voltmeter.
     Move the resister connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).

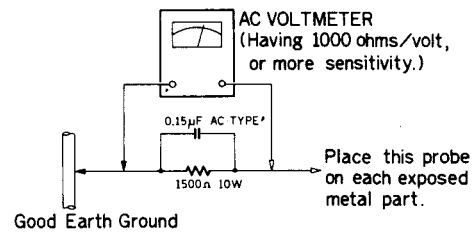


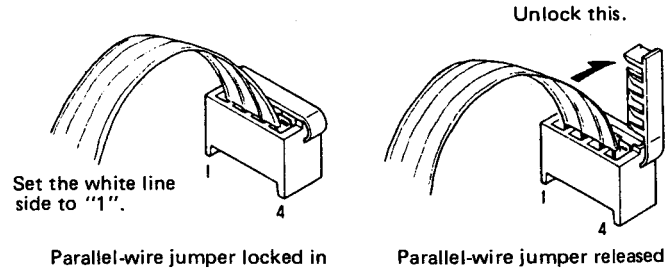
Fig. 1

Contents

1. Service Precautions

In disassembly

1. When mounting a replacement power transistor or IC, be sure to apply silicone grease (Shinetsu Chemical G-746 or equivalent) to the part that touches the heat sink.
2. For disassembly, refer to "Removal Procedures" and a relevant "Exploded View".
3. When removing the parallel-wire jumper from the connector, undo the connector lock as shown in Fig. 2.



Parallel-wire jumper locked in Parallel-wire jumper released

Fig. 2

2. Specifications

ANTENNAS (FM/AM external antenna terminals are not supplied for West Germany)

Antennas : Telescopic antenna (FM, SW2, SW)
Ferrite core bar antenna (MW, SW1, LW)
External antenna terminal (FM75/300-ohm, AM)

FM TUNER SECTION

Tuning range : 87.5 – 108.0 MHz
Usable sensitivity : Mono 17.2 dBf (2 μV/75-ohm, 4 μV/300-ohm)
Signal to noise ratio : Mono 70 dB
Stereo separation : 35 dB at 1 kHz

MW TUNER SECTION

Tuning range : 525 – 1605 kHz
Usable sensitivity : 500 μV/m (bar antenna)
50 μV (external antenna)

SW1 (DC-7) TUNER SECTION

Tuning range : 2.3 – 6 MHz

SW2 (DC-7), SW (DC-7L) TUNER SECTION

Tuning range : 6 – 18 MHz

LW (DC-7L) TUNER SECTION

Tuning range : 150 – 350 kHz

PRE-MAIN AMPLIFIER SECTION

Output power : **10 watts per channel, mini. RMS, both channels driven into 6 ohms from 70 Hz to 15 kHz, with no more than 5 % total harmonic distortion.**
At AC line voltage (DC-7)
: 10 watts per channel, mini. RMS, both channels driven into 6 ohms at 1 kHz with no more than 5 % total hamonic distortion.
At AC line voltage (DC-7L)

Input sensitivity/ impedance : AUX: 142 mV/47 k ohms
MIC: 1.2 mV/600 ohms
INST: 110 mV/47 k ohms

CASSETTE SECTION

Wow and flutter : 0.05 % (WRMS)
Frequency response : Metal tape: 30 – 16000 Hz (JVC ME or equivalent)
SA/CrO_2 tape: 30 – 15000 Hz (TDK SA or equivalent)
Normal tape: 30 – 14000 Hz (Maxell UD or equivalent)
Signal to noise ratio : 53 dB (from peak level, weighted, metal tape)
The S/N is improved by 5 dB at 1 kHz and by 10 dB above 5 kHz with Dolby NR ON.

TURNTABLE SECTION

Type : Linear-tracking tonearm and fully automatic logic control mechanism
Platter : 19 cm Aluminum, belt drive
Speeds : 33-1/3, 45 rpm
Wow and flutter : 0.08 % (WRMS)
Cartridge type/model : Dual magnet/MD-1038L (U.S.A., Canada)
Induced magnet/MD-1041 (other countries)
Stylus tip/model : 0.6 mil diamond/DT-38 (U.S.A., Canada)
0.6 mil diamond/DT-41 (other countries)
Optimum tracking force : 2.0 ±0.5 g (U.S.A., Canada)
2.5 ±0.5 g (other countries)

SPEAKER SYSTEM BA-DC7

Type : 12 cm, 2 cm 2 way bass-reflex
Power handling capacity : 10 watts (DIN)/20 watts (music)
Impedance : 6 ohms
Battery case : Left channel baffle (back)

CAUTION: Fuse for DC power supply is in the buttery case.

POWER SUPPLY

DC power source : DC 12 V ("D" x 8, "R20" x 8, optional BP-12K rechargeable battery pack)
External DC (DC 12 V car battery via optional CN-332J car adapter)

AC power source :

Countries	Model	AC line voltage & frequency	Power consumption
U.S.A. & US military market	DC-7	AC 110/120/220/240 V∿ selectable, 50/60 Hz	48 watts
Canada	DC-7	AC 120 V∿, 60 Hz	48 watts
Australia & other areas	DC-7	AC 110/120/220/240 V∿ selectable, 50/60 Hz	75 watts
U.K. & Continental Europe	DC-7L	AC 110/120/220/240 V∿ selectable, 50 Hz	75 watts

Note: Power consumption is about 6 watts with the POWER switch set to STAND BY.

GENERAL

Dimensions : 351(H) x 727(W) x 234(D) mm (13-7/8" x 28-5/8" x 9-1/4")
Weight : Music center: Approx. 10 kg (22.0 lbs) with handle
Speaker baffle (left): Approx. 3.8 kg (8.34 lbs.) with batteries
Speaker baffle (right): Approx. 2.8 kg (6.17 lbs.)

Design and specifications subject to change without notice.

3. Features

- Complete stereo system consisting of 3 components; a receiver/deck/turntable unit and 2 speakers.
  - Easy-to-operate with automatic source selection
- One-touch mechanism
  - Metal compatible heads
  - ANRS/DOLBY-B Noise Reduction
  - Single music scan mechanism
    Starts tape playback from the beginning of the following tune.
  - Timer recording mechanism
- Fully automatic turntable with linear tracking tonearm and front disc loading
  - Automatic record size selector
- 4-way power supply (AC, batteries, rechargeable battery pack and car battery)

4. Names of Parts and Their Functions

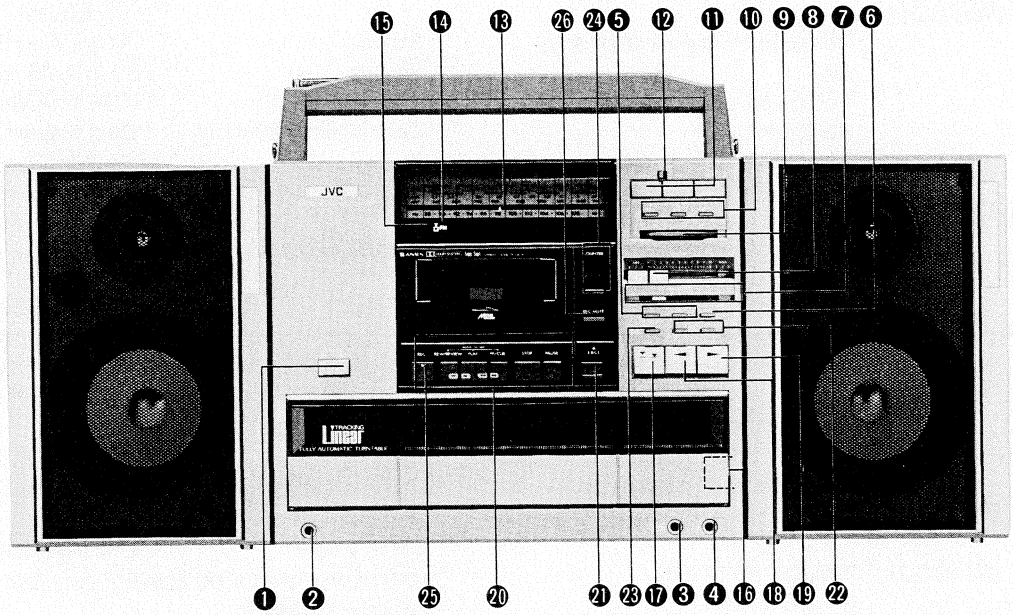


Fig. 3

❶ POWER switch

ON (▬): Set to this position to turn the power on. The dial pointer will light and the tuner is selected automatically.
When the TIMER START switch is set to FM, the FM pictorial display will light and when it is set to AM, AM will light.

STAND BY (▬): Set to this position to turn the power off.

Note:
Even when the POWER switch is set to OFF, 6 watts is consumed (with AC power supply) or a small amount of DC.

❷ Headphones jack (PHONES)
Plug the headphones plug into this jack.
Note:
Plugging in headphones switches off the speakers.

❸ Musical instrument jack (INST)
Connect the plug of an electronic musical instrument, keyboard, etc.
When an electronic musical instrument is connected, its sound can be mixed with any source. To use a musical instrument independently, do not connect anything to the AUX terminals and set the SOURCE SELECTOR to AUX.

❹ MIC jack
Use a microphone with an impedance of from 600 ohms to 10 kohms.
Note:
Plugging and unplugging a microphone may cause an abnormal noise or damage the speakers.
Make sure to set the VOLUME control to MIN before doing this.

❺ TONE buttons
LOW button: Press to boost bass response.
HIGH button: Press to boost treble response.

❻ FM MUTE/MODE switch

OFF/MONO (▬): When receiving an FM stereo broadcast that is too weak, there will be too much noise; set to this position to defeat the muting circuit. The broadcast will be heard in mono, but the clarity of reception will be improved.

ON/AUTO (▬): When listening to FM broadcasts, normally set to this position.
The muting circuit automatically works to eliminate interstation noise.

Note:
The muting circuit does not work in AM reception.

❼ MIC MIXING control
Use to adjust the volume of the microphone sound. When the VOLUME control is set to MIN, no sound will be heard even if this control is set to MAX, therefore, adjust the volume of microphone sound with both the MIC MIXING control and the VOLUME control.

❽ VOLUME control
Use to adjust the volume of speakers or headphones.

❾ TUNING control
Use to tune to FM or AM (SW1, SW2, LW, MW) broadcasts. When a normal broadcast is received, the dial pointer changes from green to orange.

❿ AM band switches
SW2(DC-7), SW(DC-7L): Press this button to listen to a SW2 or SW broadcast.
SW1(DC-7), LW(DC-7L): Press this button to listen to a SW1 or LW broadcast.
MW: Press this button to listen to an MW broadcast.

⓫ SOURCE SELECTOR switches
FM: Press this button to listen to an FM broadcast.
AM: Press this button to listen to an AM (SW1, SW2, LW, MW) broadcast.
AUX: Press this button to listen to the source connected to the AUX terminals.

⓬ TIMER START switch
According to the setting of this switch, either an FM or AM broadcast will be received automatically when power is applied via a timer.

⓭ Dial pointer
When the power is turned on, this pointer lights and is green; if tuned to a broadcast frequency, it changes to orange.

⓮ Pictorial display
As the input source selection mechanism is automatic, pressing the START button, for example, changes the input source from TAPE to PHONO and this is indicated by this pictorial display; the tape stops automatically.

⓯ FM STEREO indicator
When the FM broadcast being received is stereo, this indicator lights.

⓰ SPEED selector
Set this selector according to the record speed.
33-1/3 rpm: "33"
45 rpm: "45"

⓱ UP/DOWN button (▼▼)
For manual play, press this button to lower the tonearm. To stop in the middle of a record, press this button again to lift the tonearm.

⓲ START button (◄)
Press this button to start playing a record automatically. When you keep this button pressed, the tonearm moves to the left. When it reaches the position from which you want to play, release it then press the UP/DOWN button. If this button is pressed during the playing of a record, the tonearm lifts from the record and moves to the left again and when the UP/DOWN button is pressed, play starts from the position of the tonearm. Pressing the START (◄) or STOP (►) button while the tonearm is moving changes to manual operation and the tonearm moves to the left or the right only while the button is pressed.
Note:
If you press the START (◄) or STOP (►) button instantaneoulsy, the tonearm moves automatically to the left or right.

⓳ STOP button (►)
When this button is pressed while playing a record, the tonearm is raised, moved to the right and returned to the rest; then the platter stops.
If the UP/DOWN button is pressed while the tonearm is moving, play will start at the position where UP/DOWN button is pressed.

⓴ Cassette operation buttons
REC (○): Used for recording. First press this button and then press the PLAY (►) button to start recording. In this case, press the PLAY button while the REC button is held pressed, if not, recording is impossible
The RECORDING indicator will light.
REW/REVIEW (◄◄): Press to rewind the tape.
PLAY (►): Press to play a tape.
FF/CUE (►►): Press to fast forward the tape.
STOP (■): Press to stop the tape.
PAUSE (▮▮): Press to stop the tape temporarily during recording or play. To release the pause function, press again.

㉑ EJECT button

㉒ TAPE selector
The bias current and equalization characteristic can be selected by setting this button according to the tape being used.
NORMAL: Press this button when using metal or chrome tape (▬).
Set to its "out" position (▟) when using normal tape.
METAL (▬): Press the NORMAL button to its "in" position (▬) then press the METAL/CrO_2 button to the "in" position (▬) when using metal tape.
CrO_2 (▟): Press the NORMAL button to its "in" position (▬) then press the METAL/CrO_2 button to the "out" position (▟) when using chrome tape.

㉓ NR SYSTEM (ANRS/DOLBY B) switch
ON (▬): Set to this position to record with ANRS/DOLBY B Noise Reduction System or to play back a tape recorded with ANRS or DOLBY B Noise Reduction.
OFF (▟): Set to this position to switch off ANRS/DOLBY B Noise Reduction.
Notes:
- Be sure to set this button correctly, otherwise the tone will be changed.
- "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

㉔ COUNTER/Counter reset button

㉕ RECORDING indicator
This indicator lights when recording is being made.

㉖ REC MUTE button
Press this button in recording mode to leave non-recorded sections between tunes. So that music scanning is possible, keep this button pressed during 4 sec. or more to leave non-recorded sections between tunes.

CUE and REVIEW
To skip an unnecessary part during playback or to listen to a section again, press the FF/CUE (►►) or the REW/REVIEW (◄◄) button.
If one of these buttons is pressed, while the PLAY button is pressed, a tape is fast forwarded or rewound and the play mode is resumed when you release the button.

5. Description of Technology

5-(1) New ASS circuit

In this stereo system, the ASS (Automatic Source Selector), which has previously been employed in an FM-Am stereo cassette system, is improved and incorporated in an IC with a newly added TAPE/PHONO stop facility.

1. Circuit configuration

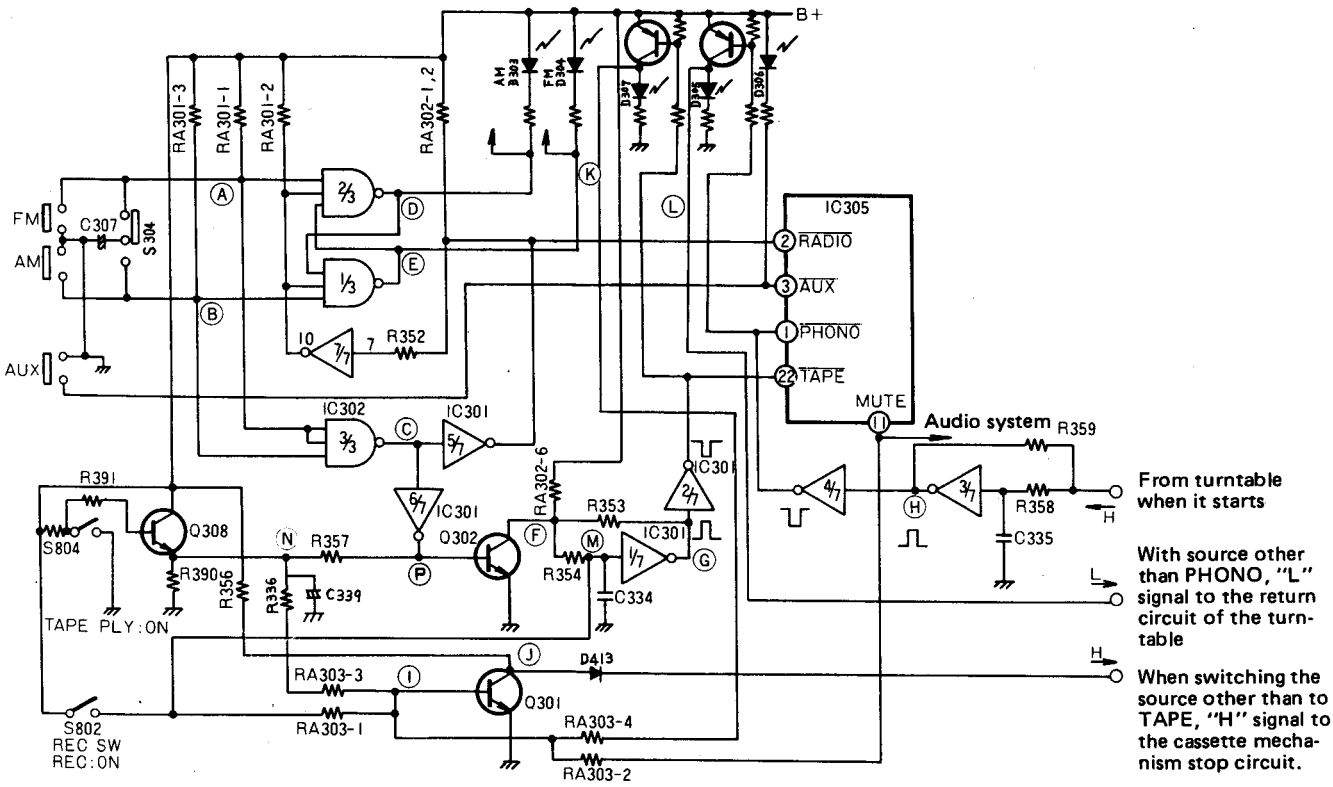


Fig. 4

2. Description of main circuits

IC305 performs switching between the 4 signal systems. In this IC, pins ①, ②, ③ and ㉒ are control pins. Any of these pins, once given an "L" input, is kept at "L" to switch the source. At this time, the source LED indicator indicates the selected source corresponding to the input pin. Pin ⑪ emits the "H" muting signal when an "L" input enters one of the above pins or when power is turned ON.

IC302 1/3 and 2/3 form a flip-flop circuit to perform switching between FM and AM.

C307 is the initializing capacitor for switching the source to FM or AM by S304 when power is turned ON.

IC301, though represented as a series of inverters, is a 7 NPN transistor array; 1/7 and 3/7 act as pulse generator circuits for PHONO and TAPE controls, respectively.

Q301 is the transistor for TAPE stop control and Q308 is a buffer.

3. Circuit operation

When power is turned ON, IC305 pins ①, ③ and ㉒ become "H" and point Ⓐ becomes "L" temporarily via the time constant of C307 and RA301-1. Thus, point Ⓔ in the flip-flop circuit IC302 1/3 and 2/3 is kept at "L" and Q310 turns ON so that D304 lights to display "FM".

In addition, IC302 3/3 produces an "H" pulse at point Ⓒ in the inverted form of the pulse at point Ⓐ. An "L" pulse is applied to IC305 pin ② by IC301 5/7. In the signal systems, therefore, pins ①, ③ and ㉒ become "H" and pin ② becomes "L" to enter the FM mode.

With S304 set to AM, the AM mode is obtained through the same operation.

From the RADIO mode with power ON.

- When the START button of the turntable is pressed, an "H" signal is applied to IC301 3/7 via the main amplifier from the turntable logic IC. IC301 3/7 produces a pulse of about 2 msec width. This pulse is inverted by IC301 4/7 and applied to IC305 pin ① as an "L" pulse. IC305 now switches the source to PHONO. At this time, Q311 turns ON and LED D305 lights to display "PHONO".
- When playing a cassette, S804 switches ON. Thus, points Ⓝ and Ⓟ become "L", Q302 is open, point Ⓕ becomes "H", IC301 1/7 produces an "H" pulse, IC301 2/7 inverts this pulse, then an "L" pulse is applied to IC305 pin ㉒ , and IC305 switches the source to TAPE.
  Concurrently, Q313 turns ON and LED D307 lights to display "TAPE".
  Since Q313 turns ON, point Ⓚ becomes "H". Subsequently, bias is applied to point Ⓘ via RA303-4 so that Q301 is turnded ON to make point Ⓙ "L". The operation of the tape stop circuit is thereby stopped to ensure tape running. Point Ⓛ becomes "L" simultaneously with point Ⓙ , therefore an "L" signal is sent to the tonearm return circuit of the turntable to return the tonearm to its rest.
- When the AUX button is pressed, IC305 pin ③ becomes "L" and IC305 switches the source to AUX. At the same time, LED D306 lights to display "AUX"
  At this time, IC305 pin ㉒ becomes "H". Thus, point Ⓚ becomes "L", point Ⓘ "L" and point Ⓙ "H". As a result, the tape transport mechanism is stopped and S804 is open. During this period, an "H" pulse from IC305 pin ⑪ turns ON Q301 for about 0.5 sec through RA302-2. For this reason, there is a time lag of about 0.5 sec until the tape transport mechanism is stopped.

Note: IC301 6/7 emits the audio muting signal when switching the source from FM to AM. Thus, point Ⓒ becomes "H", point Ⓔ "L", point Ⓕ "H" and point Ⓖ "H". As a result, an "L" pulse is applied to IC305 pins ② and ㉒ simultaneously. Since pin ② has priority over pin ㉒ . the RADIO mode is maintained and only muting is performed.

5-(2) Record size detection circuit

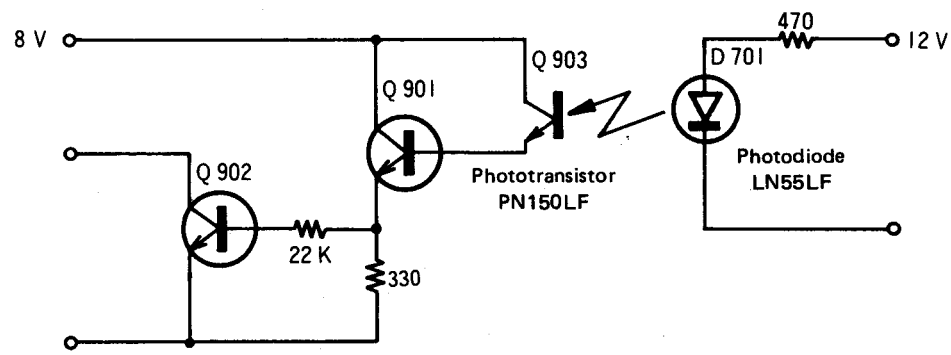


Fig. 5

This circuit consists of a photodiode (LN55LF) mounted in the turntable motor board section and a phototransistor (PN150LF) mounted in the mechanism base section. The infrared ray from the photodiode is received by the phototransistor to detect the record size.
These elements are located at the middle between the edges of 17 cm and 30 cm records. With a 17 cm record, the phototransistor receives the infrared ray to make the collector of Q902 "L". With a 30 cm record, the infrared ray is blocked by the record to make the collector open. The state of the collector permits the lead-in/lead-out detection circuit to automatically perform its function correctly according to the record size.

5-(3) Turntable controller IC (M54981P)

Block diagram

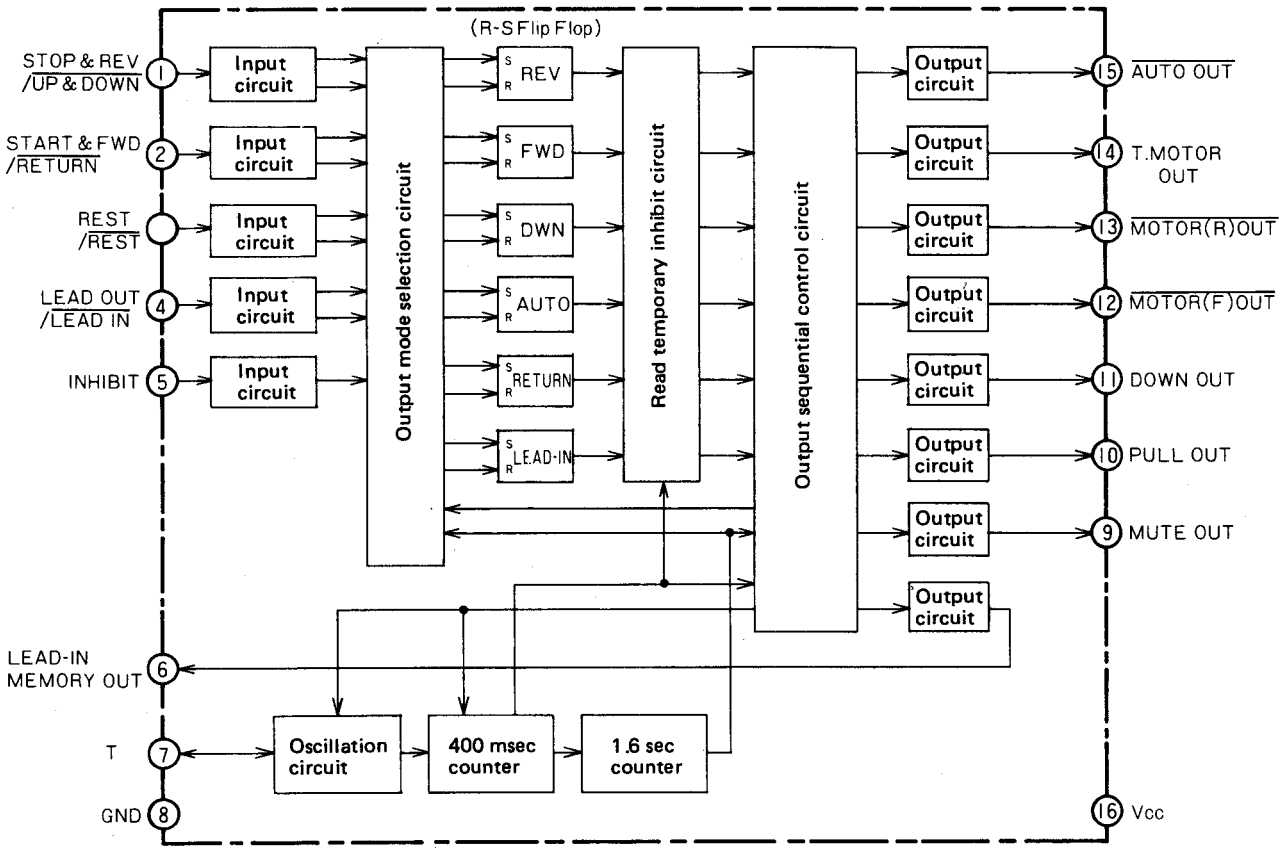


Fig. 6

Explanation of pins

No.	Name	Function
1	STOP & REW/ UP & DOWN	"H": STOP in AUTO mode and REW in MANU mode "L": DOWN in AUTO mode and UP in MANU mode Open: does not function,
2	START & FWD/ RETURN	"H": START in AUTO mode and FWD in MANU mode "L": RETURN Open: does not function.
3	REST/REST	"H" or "L": REST Open: does not function.
4	LEAD-OUT/ LEAD-IN	"H": LEAD-OUT "L": LEAD-IN Open: does not function.
5	INHIBIT	"H": inhibits arm drive compulsorily. "L": inhibits MUTE cancel compulsorily.
6	LEAD-IN MEMORY OUT	Open collector output pin to emit the LEAD-IN memory signal.
7	T	Pin to which resistor and capacitor for OSC circuit are connected externally
8	GND	Ground
9	SIGNAL MUTE OUT	Output pin to emit the audio muting signal

No.	Name	Function
10	PULL-OUT	Output pin to emit the arm-down solenoid drive pulse signal
11	DOWN-OUT	Output pin to emit the arm-down solenoid drive signal
12	MOTOR (R) OUT	Output pin to emit the reverse-rotation signal of arm drive motor
13	MOTOR (F) OUT	Output pin to emit the forward rotation signal of the arm drive motor
14	T. MOTOR OUT	Output pin to emit the turn-table motor drive signal
15	AUTO OUT	Open collector output pin to emit the AUTO signal
16	Vcc	Power source

Notes: Pins 1 and 2: operation input
Pins 3-5: control input
Pin 6: output
Pin 7: input/output
Pins 9-15: output

6. Removal Procedures

6-(1) Removal of outer parts

1. Removal of back cover (Fig. 7)

(1) Remove screws ① – ⑫ to the rear.

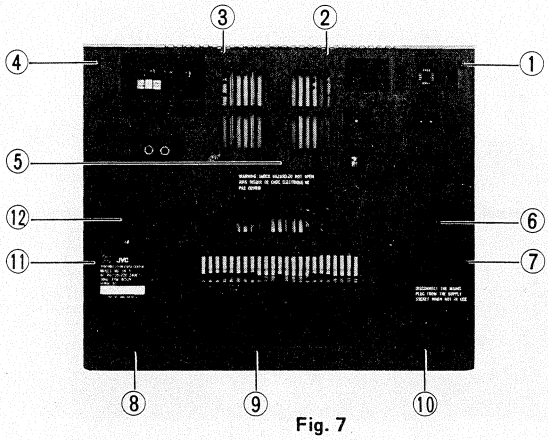


Fig. 7

2. Removal of top cover (Figs 8 and 9)

(1) Remove the back cover.

(2) Remove screws ⑮ and ⑯ .

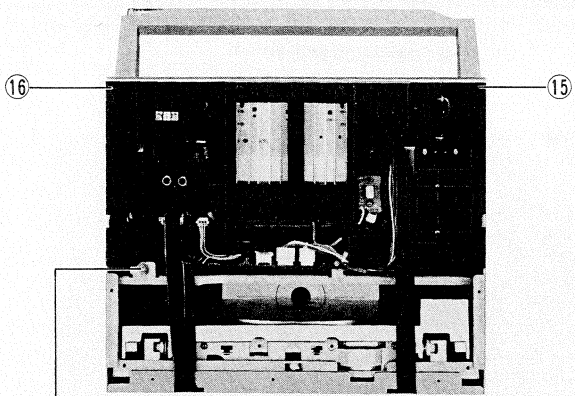


Fig. 8

(3) Remove 8 screws ⑰ – ⑳ from both sides, then lift the top cover off.

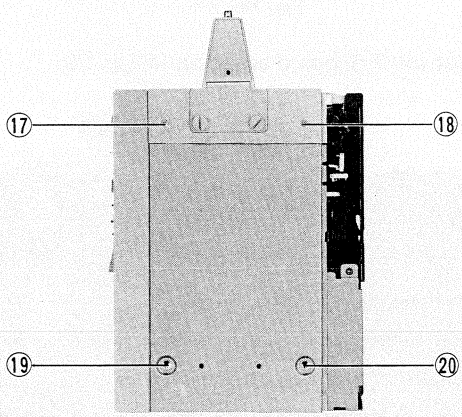


Fig. 9

Note: When lifting the top cover, be careful not to disconnect the antenna wire running from the tuner board.

3. Removeal of front panel (Figs 10-13)

(1) Remove the back cover and the top cover.

(2) Lift the holder cover off as shown below.

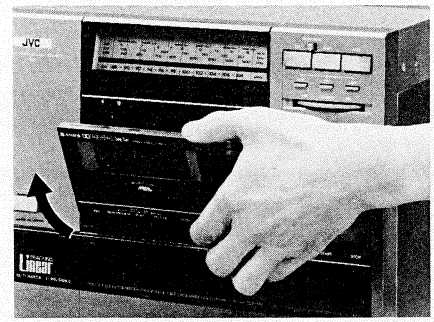


Fig. 10

(3) Remove screws ㉑ and ㉒ inside the holder, then pull out the VR knobs.

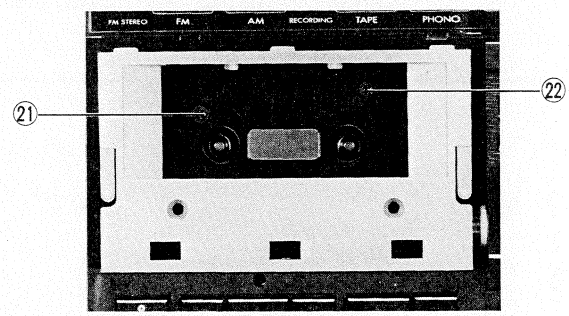


Fig. 11

(4) Remove screws ㉓ – ㉖ on the upper side and 3 screws ㉗ on the lower side.

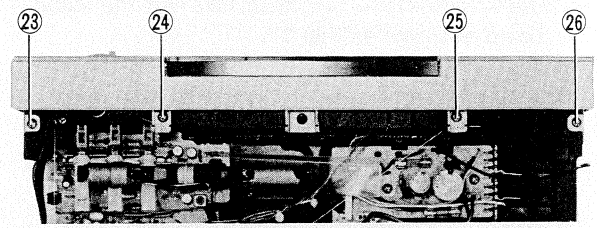


Fig. 12

(5) Remove 2 screws ㉘ from both sides, then remove the front panel pulling it forwards.

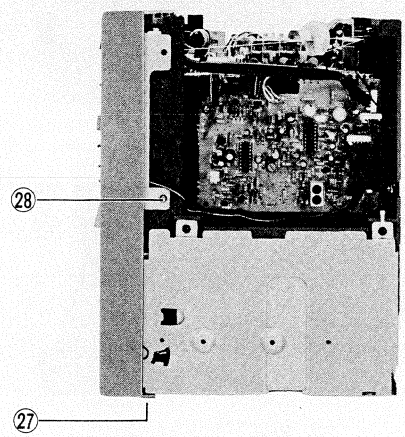


Fig. 13

6-(2) Removal of P.C. boards

1. Removal of tuner P.C. board (Figs 14 and 15)

(1) Remove the front panel.
(2) Remove the antenna terminal securing screw on the rear side.
(3) Remove the dial string.
(4) Remove screws ① – ⑤.

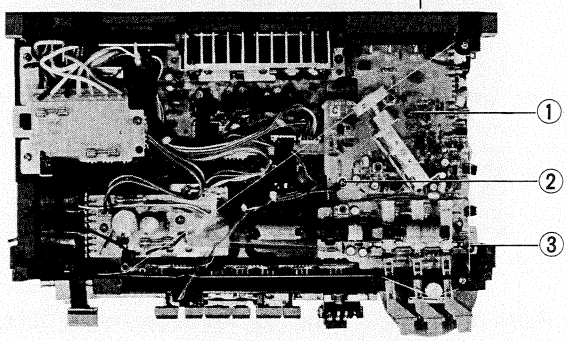


Fig. 14

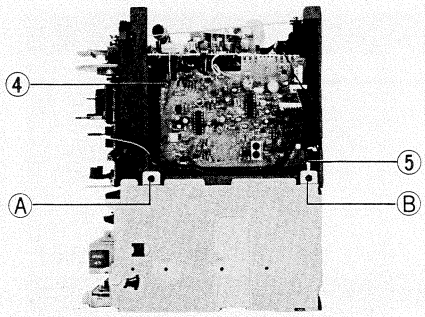


Fig. 15

2. Removal of audio P. C. board (Figs 16 and 17)

(1) Remove the tuner P.C. board.
(2) Remove screws ① – ④, then take out the audio P.C. board as shown in Fig. 17.

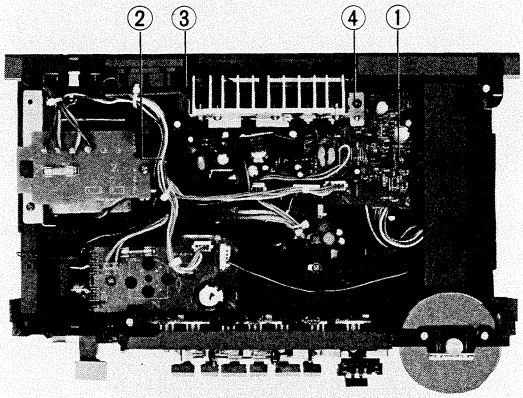


Fig. 16

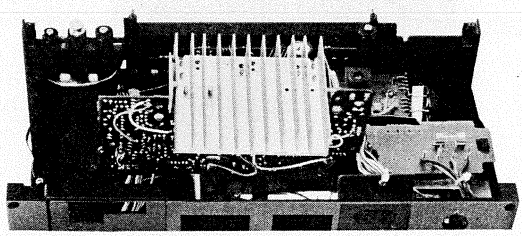


Fig. 17

3. Removal of cassette P.C. board (Fig. 18-20)

(1) Remove screws ① – ⑤

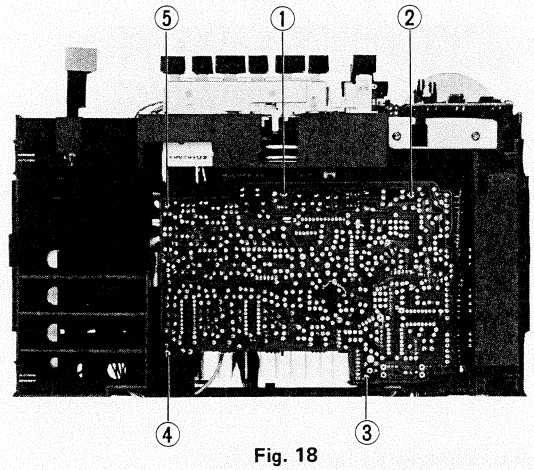


Fig. 18

(2) Remove the spring of the REC/PB slide switch attached to the parts side of the P.C. board.
Note: Hook the end of this spring to the lever of the cassette mechanism.

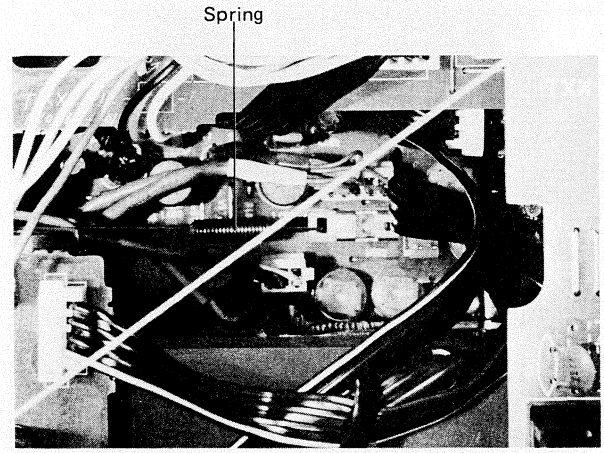


Fig. 19

(3) Take out the P.C. board as shown in Fig. 20.

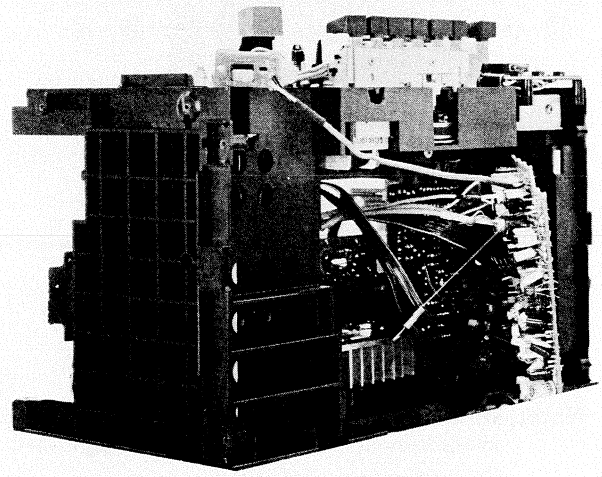


Fig. 20

6-(3) Removal of cassette mechanism (Figs 20 and 21)

(1) Remove screws ① – ④.

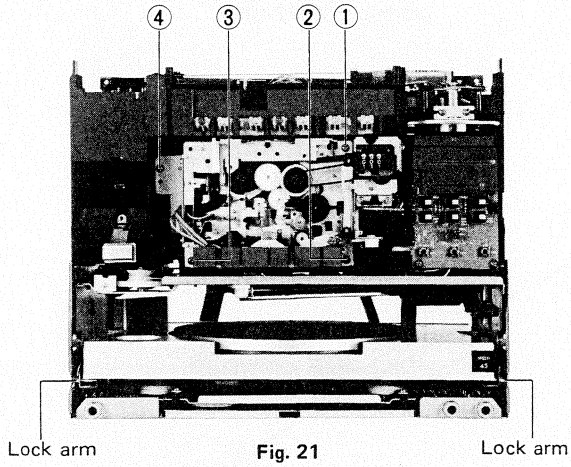


Fig. 21

(2) Take out the mechanism as shown in Fig. 22.

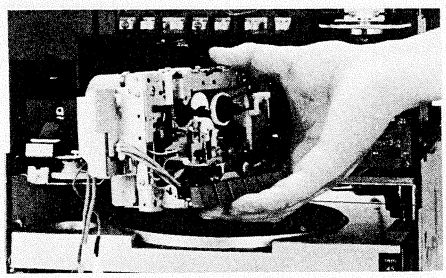


Fig. 22

6-(4) Removal of power transformer (Fig. 23)

(1) Remove the fuse board.
(2) Remove power transformer securing screw ① on the rear and screws ② and ③ on the side, then take out the power transformer.

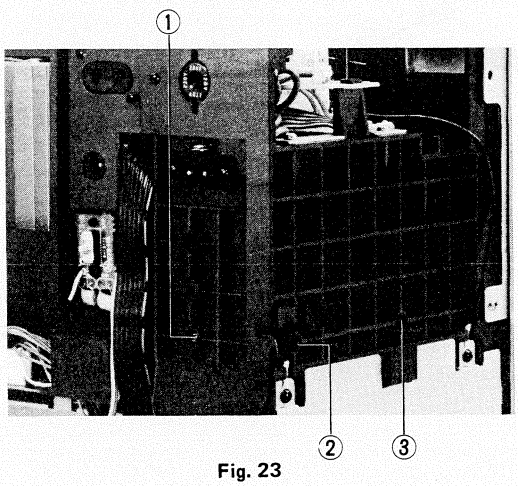


Fig. 23

Note: Before mounting the power transformer, check that its wires are not disconnected. If any are, bind and solder.

6-(5) Removal of turntable

(Figs 15 and 24-26)

(1) Remove 4 screws Ⓐ and Ⓑ shown in Fig. 15 from both sides, then separate the receiver and turntable sections from each other.
(2) Remove screws ③ – ⑥ , then take out the turntable mechanism section.

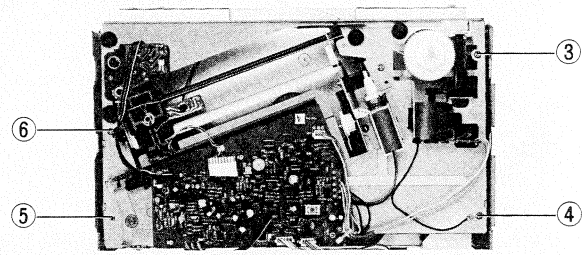


Fig. 24

(3) Remove screws ⑦ and ⑧ , push down stopper Ⓐ in the direction of the arrow, then put it in hole Ⓓ with either of these screws. (Thereby, stoppers Ⓑ and Ⓒ are raised and undone.)
(4) Release the lock arms (Fig. 21), then pull out the turntable forwards.

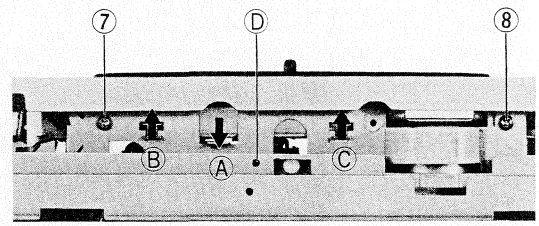


Fig. 25

6-(6) Removal of speakers

Hot melt is used as the adhesive to secure the ornament ass'y. As shown in Fig. 26, put a screwdriver, etc. in the clearance at the bottom of the cabinet, then remove the ornament ass'y slowly, and remove the speakers from the front of the cabinet.
When mounting the ornament ass'y. secure it by warming the hot melt adhesive with a soldering iron.
Note that hot melt adhesive is applied to the replacement cabinets before delivery.

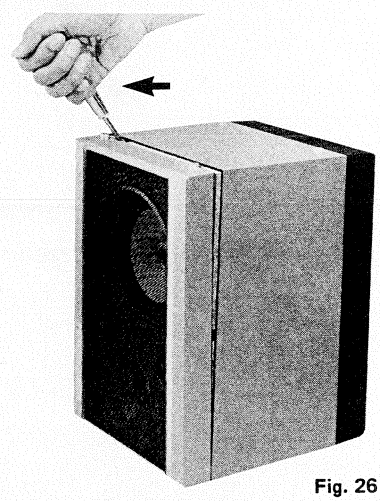


Fig. 26

7. Stringing Procedures

7-(1) Dial stringing

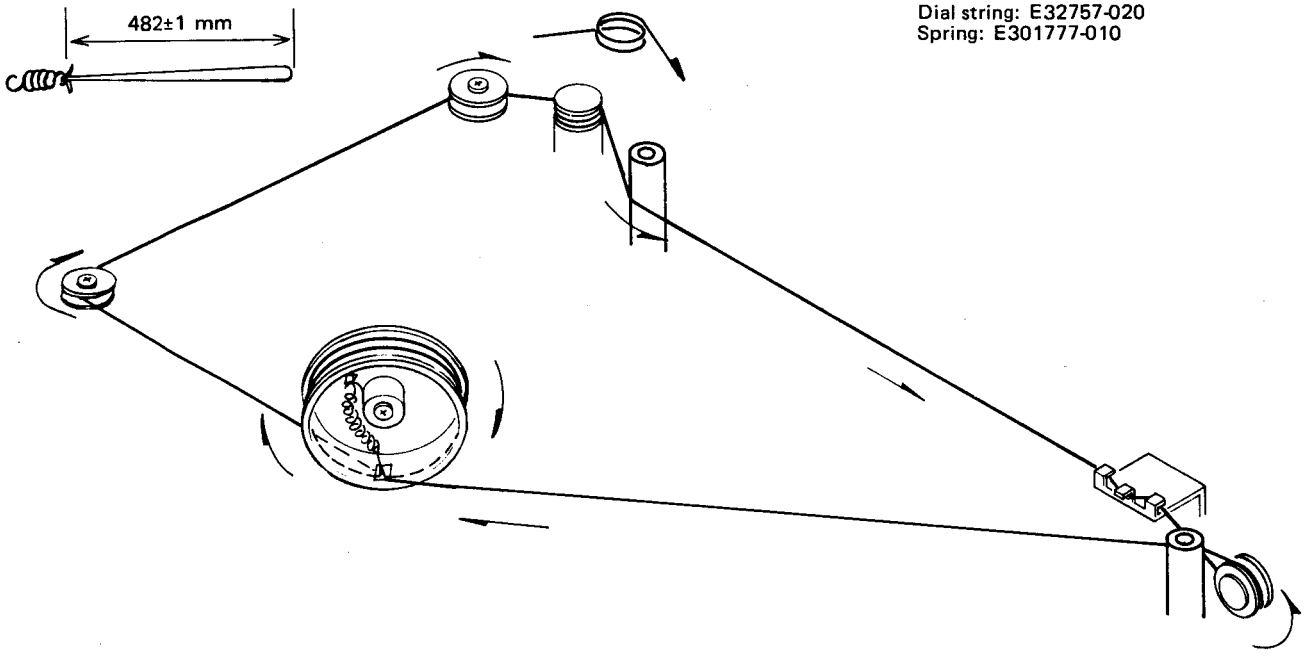


Fig. 27

7-(2) Threading the turntable motor board cord

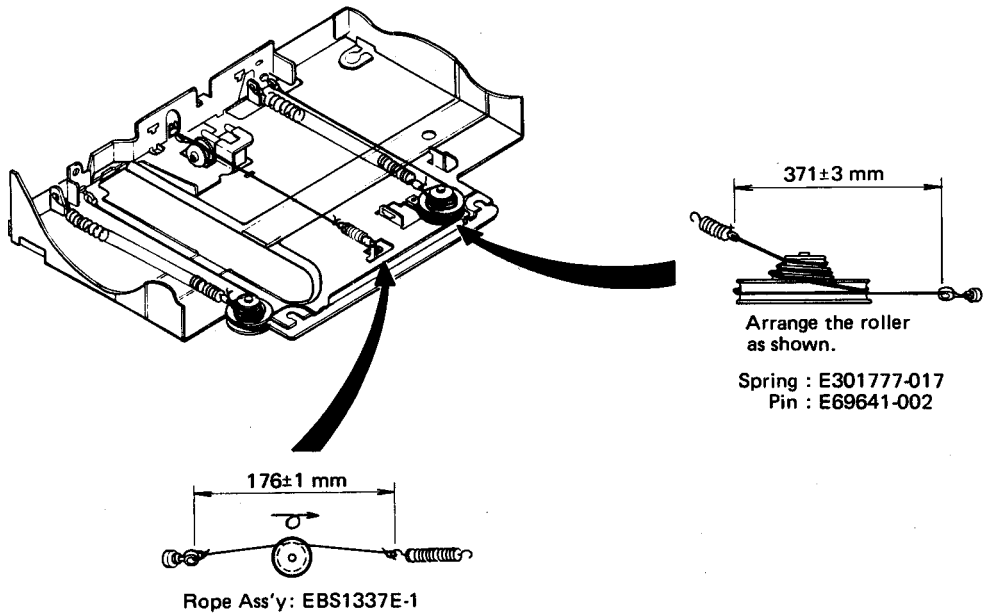


Fig. 28

8. Adjustment Procedures

8-(1) Adjustment of tuner section

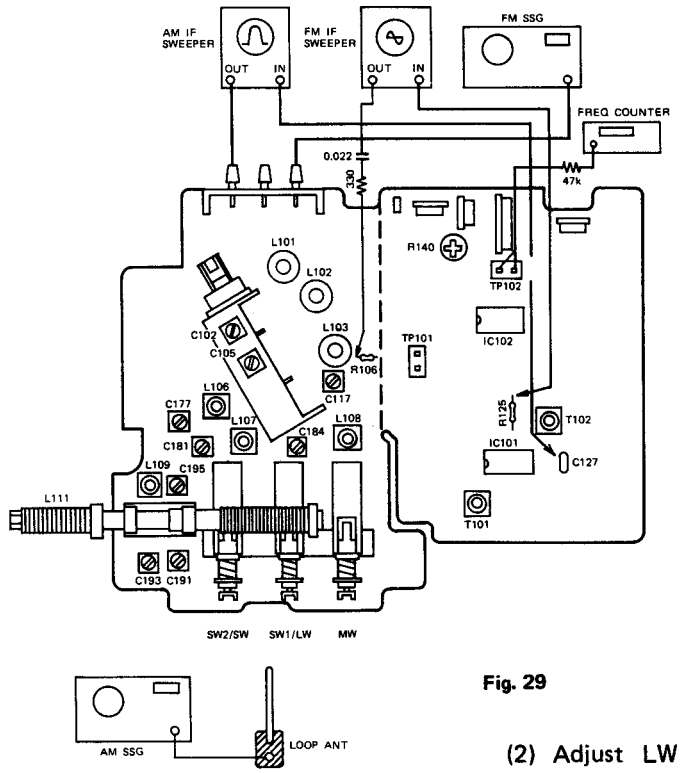


Fig. 29

FM section

1. FM IF

Connect a sweep generator as shown above, then adjust FM detection transformer T102 so that S-curve waveform is linear and symmetrical.

2. FM frontend

(1) Adjust FM OSC tuning coil L103 so that 88 MHz is received with the dial set to 88 MHz.
(2) Adjust FM OSC tuning trimmer C117 so that 108 MHz is received with the dial set to 108 MHz.
(3) Adjust FM RF tuning coils L101 and L102 to optimize sensitivity at 88 MHz.
(4) Adjust FM RF tuning trimmers C102 and C105 to optimize sensitivity at 108 MHz.

3. FM MPX section

Connect a frequency counter to test point TP102 (④ VCO, ⑤ GND), then adjust MPX VCO free-run frequency adjustment VR R140 so that the free-run frequency is 19 kHz. AUTO/MONO switch: MONO input signal at AUTO setting

AM section

1. AM IF

Adjust AM IF transformer T101 so that the IF waveform of the sweep generator is symmetrical and maximum.

2. MW frontend

(1) Adjust MW OSC tuning coil L108 so that 600 kHz is received with the dial set to 600 kHz.
(2) Adjust MW OSC tuning trimmer C184 so that 1400 kHz is received with the dial set to 1400 kHz.
(3) Adjust bar antenna coil L111 at its MW side to optimize sensitivity at 600 kHz.
(4) Adjust MW antenna tuning trimmer C177 to optimize sensitivity at 1400 kHz.

3. LW frontend (DC-7L only)

(1) Adjust LW OSC tuning coil L107 so taht 150 kHz is received with the dial set to 150 kHz.
(2) Adjust LW OSC tuning trimmer C181 so that 350 kHz is received with the dial set to 350 kHz.
(3) Adjust bar antenna coil L111 at its LW side to optimize sensitivity at 150 kHz.
(4) Adjust LW antenna tuning trimmer C181 to optimize sensitivity at 350 kHz.

4. SW1 frontend (DC-7 only)

(1) Adjust SW1 OSC coil L107 so that 2.3 MHz is received with the dial set to 2.3 MHz.
(2) Adjust SW1 OSC trimmer C181 so that 6 MHz is received with the dial set to 6 MHz.
(3) Adjust bar antenna coil L111 at its SW side to optimize sensitivity at 2.3 MHz.
(4) Adjust SW antenna tuning trimmer C181 to optimize sensitivity at 6 MHz.

5. SW2 (DC-7 only)/SW (DC-7L only) frontend

(1) Adjust SW2/SW OSC tuning coil L106 so that 6 MHz is received with the dial set to 6 MHz.
(2) Adjust SW2/SW OSC tuning trimmer C177 so that 18 MHz is received with the dial set to 18 MHz.
(3) Adjust SW2/SW antenna coil L109 to optimize sensitivity at 6 MHz.
(4) Adjust SW2/SW antenna tuning trimmer C195 to optimize sensitivity at 18 MHz.

Band	Tuning scale setting of recd. freq.	Adj. point	
		Freq. adj.	Sens. opt.
FM	88 MHz 108 MHz	L103 C117	L101, L102 C102, C105
MW	600 kHz 1400 kHz	L108 C184	L111 MW side C177
LW (DC-7L only)	150 kHz 350 kHz	L107 C181	L111 LW side C181
SW1 (DC-7 only)	2.3 MHz 6 MHz	L107 C181	L111 SW side C181
SW2 (DC-7 only) SW (DC-7L only)	6 MHz 18 MHz	L106 C177	L109 C195

8-(2) Adjustment of turntable section

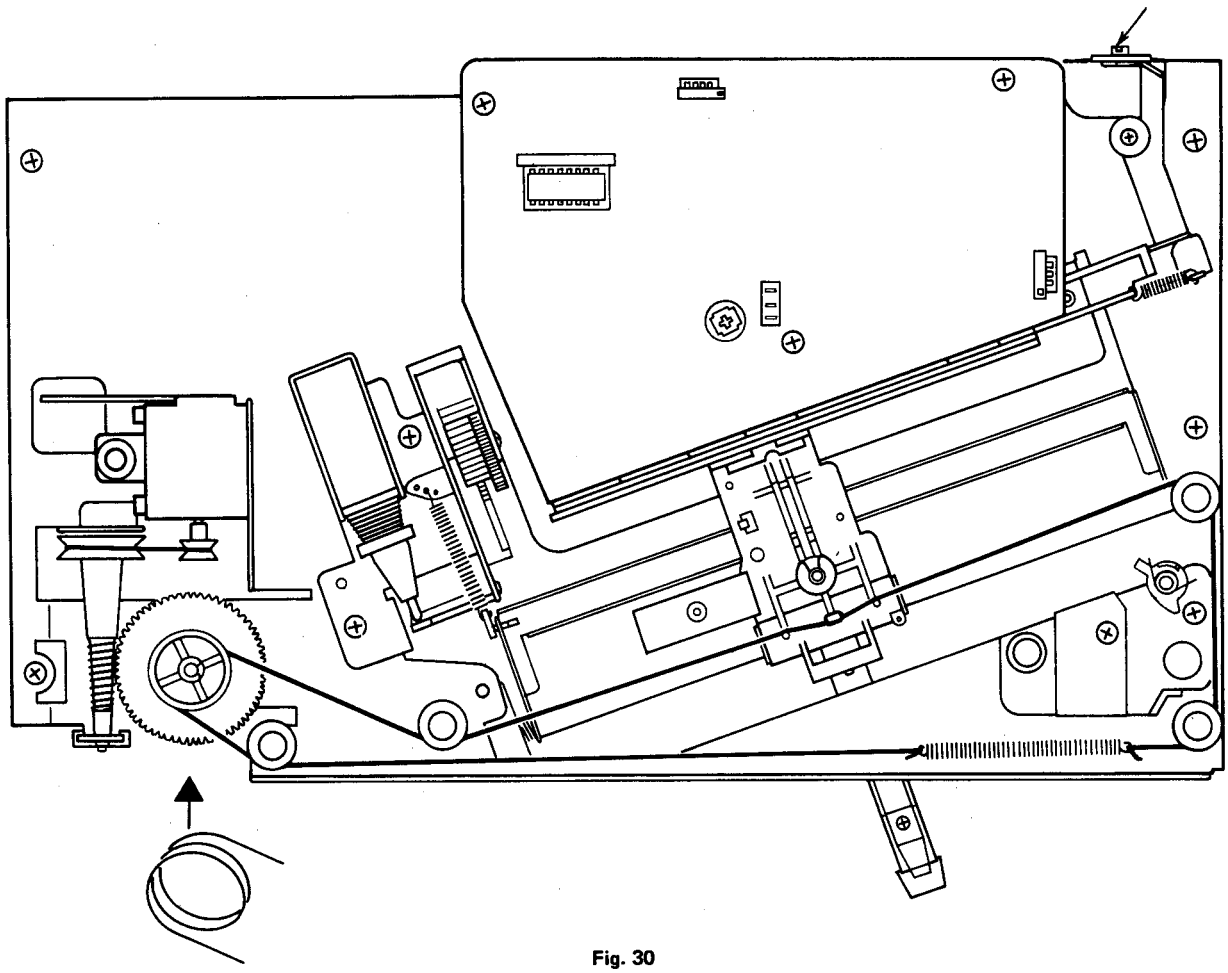


Fig. 30

1. **Arm tracking sensitivity adjustment**
   Keep the arm at its UP position, remove it from the rest, and adjust VR R620 so that the output between ① and ③ of (PLAY-UP) test point P601 is 3.2 ± 0.2 V.
2. **Motor speed adjustment**
   Play back test record RG-324 (3 kHz), then adjust the motor speed by VR R714 (45 rpm) and R713 (33 rpm) on the speed adjustment board (TXX-417-3). In this case, perform 45 rpm adjustment first.
   The speed adjustment board is mounted on the motor board.
3. **Lead-in adjustment and lead-out check**
   Perform this adjustment and check with the test records to obtain the following values:

Lead-in	**Test record**
30 cm record: 20 ± 2 count, adjustment	RG-325
17 cm record: 20 ± 10 count, check	SS-4445(Toshiba)
Lead-out	
30 cm record: 16 ± 3 count, check	SS-4445(Toshiba)
17 cm record: 26 ± 3 count, check	SS-4445(Toshiba)

Note: For lead-in adjustment screw, refer to Fig. 8.

4. **Operation check after servicing**
   (1) Even when the power of the system is turned ON with the turntable door closed, neither the platter nor the arm should operate.
   (2) When the door is opened and pushed down slightly, the motor board should come out.
   (3) When the START button is pressed, the platter should rotate. About 2 sec later, the stylus should move on to the record to start the play mode.
   Perform the lead-in/lead-out check.
   (4) Check the arm UP/DOWN operation.
   (5) When the STOP button is pressed in the play mode, the arm should return to the start (rest) position to stop the platter rotating.
   (6) When the STOP button is pressed in the play mode, the arm should lift up and move inwards. When the UP/DOWN button is pressed while the arm is moving, the arm should go down and the unit should enter the play mode.
   (7) When the motor board is pressed in in the play mode, the arm should return to the start (rest) position to stop the platter rotating.

8-(3) Adjustment of cassette amplifier section

1. Adjustment board

Cassette board (TXX-413-1)

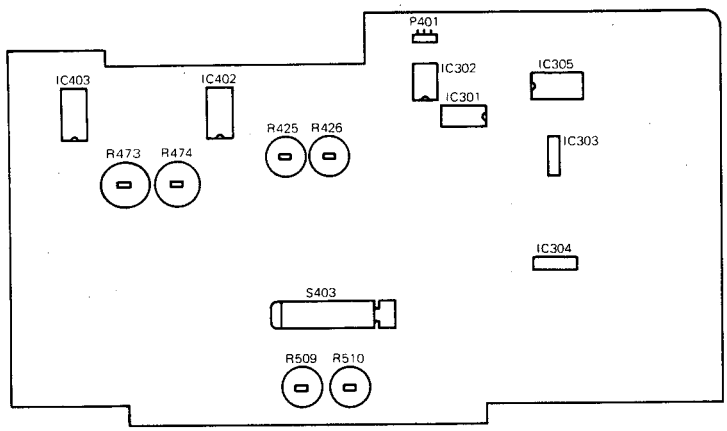


Fig. 31

ALC board (TXX-534-1)

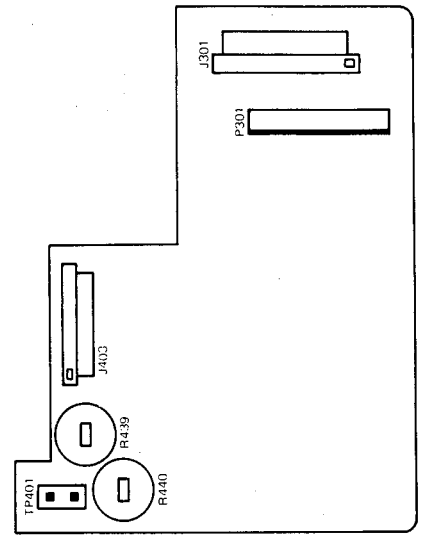


Fig. 32

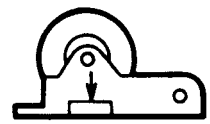
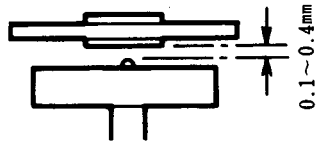
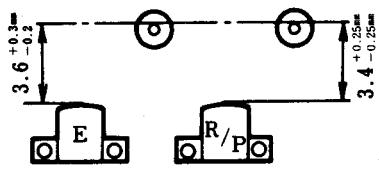
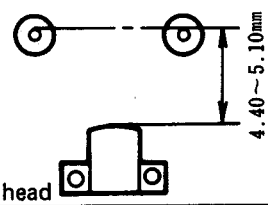
2. Adjustment procedures

Item	Adj.	Select SWs		Adj. point	Std. value
		TAPE	NR system		
1. Tape speed and wow/ flutter check	Play test tape VTT-656 to obtain std. value.	NORMAL	OFF	Semi-fixed resistor inside motor	300 Hz (freq. counter) Less than 0.16 % RMS (wow/flutter)
2. Azimuth adj.	Play VTT-658 to obtain max. output and min. phase diff.	NORMAL	OFF	REC/PB head azimuth adj. screw	
3. PB level adj.	Play VTT-666 (400 Hz) and adjust outputs of TP-1 and -3 by R425 and R426.	NORMAL	OFF	VR R425 (L) VR R426 (R)	0 dBs (775 mV)
4. Bias freq.	With beat cut SW set to "1", adjust L407 to obtain std. value. Meas. point: Shielded wire mounting section of beat cut SW board. *REC mode	METAL	OFF	L407	57 ±1 kHz
5. NR level adj.	Apply 1 kHz (200 mV) input to AUX and enter REC mode. Adjust outputs of TP-1 and TP-3 with R439 and R440. Note: Short ALC TP401 by 3.3 kΩ. (Meas. point is same as above.)	NORMAL	OFF	VR R439 (L) VR R440 (R)	0 dBs (775 mV)
6. Bias level adj. (REC/ PB freq. response adj.)	Apply 1 kHz and 10 kHz inputs (200 mV, -25 dBs) to AUX and record them alternately on normal tape UD-60. In PB, adjust R509 and R510 to make the levels for 1 kHz and 10 kHz identical at TP-1 and TP-3.	NORMAL	OFF	VR R509 (L) VR R510 (R)	Within ± 1 dB
7. REC/PB level adj.	Apply 1 kHz (200 mV) input to AUX and record it on normal tape UD-60. In PB, adjust R427 and R428 so that the level is 0 dBs at TP-1 and TP-3.	NORMAL	OFF	VR R427 (L) VR R428 (R)	0 dBs (775 mV)

Notes: 1. Be sure the screwdriver for azimuth adjustment is not magnetized.
2. Test points TP-1 and TP-3 are on the pattern side.

8-(4) Adjustment of cassette mechanism section

When replacing parts in this mechanism, check the following items.

Item	Standards	Test	Tape to be used
Supply voltage	Rated voltage: DC 12 V Motor operating voltage range: DC 8 – 16 V	Constant-voltage power supply	–
Tape speed	4.8 cm/s: ±2 % (3000 Hz) Deviation width: 1 %	Frequency counter (Digital counter)	VTT-656
Wow and flutter	Less than 0.16 % (JIS RMS)	Wow meter	VTT-656
Takeup torque	PB: 35 – 75 g·cm FF: more than 70 g·cm REW: more than 70 g·cm	For PB, no slipping should occur between idler – reels locked – takeup pulley. Use torque gauge CTG or CT-W120.	–
Current comsumption (single unit of motor)	PB: less than 170 mA FF: less than 250 mA REW: less than 250 mA	DC ammeter	C-60 There should be no abnormality in takeup torque of the tape to be used.
Pinch roller pressure	300 – 450 g	Tension gauge Pull it vertically with pinch roller stopped. 	–
Uneven thrust of flywheel		Clearance gauge	–
Head position at PB or REC		The head position should meet the dimensions on the left in PB (REC) mode. The heads should not touch the cassette case.	Any cassette tape
Head position at music scan			–
Auto-stop operation	The mechanism should stop automatically upon completion of taking up the tape when power decreases to 8 V in PB/REC, FF and REW.		Any cassette tape
FF/REW time	FF: less than 95 sec REW: less than 95 sec		C-60

9. Block Diagrams

9-(1) Audio & cassette section

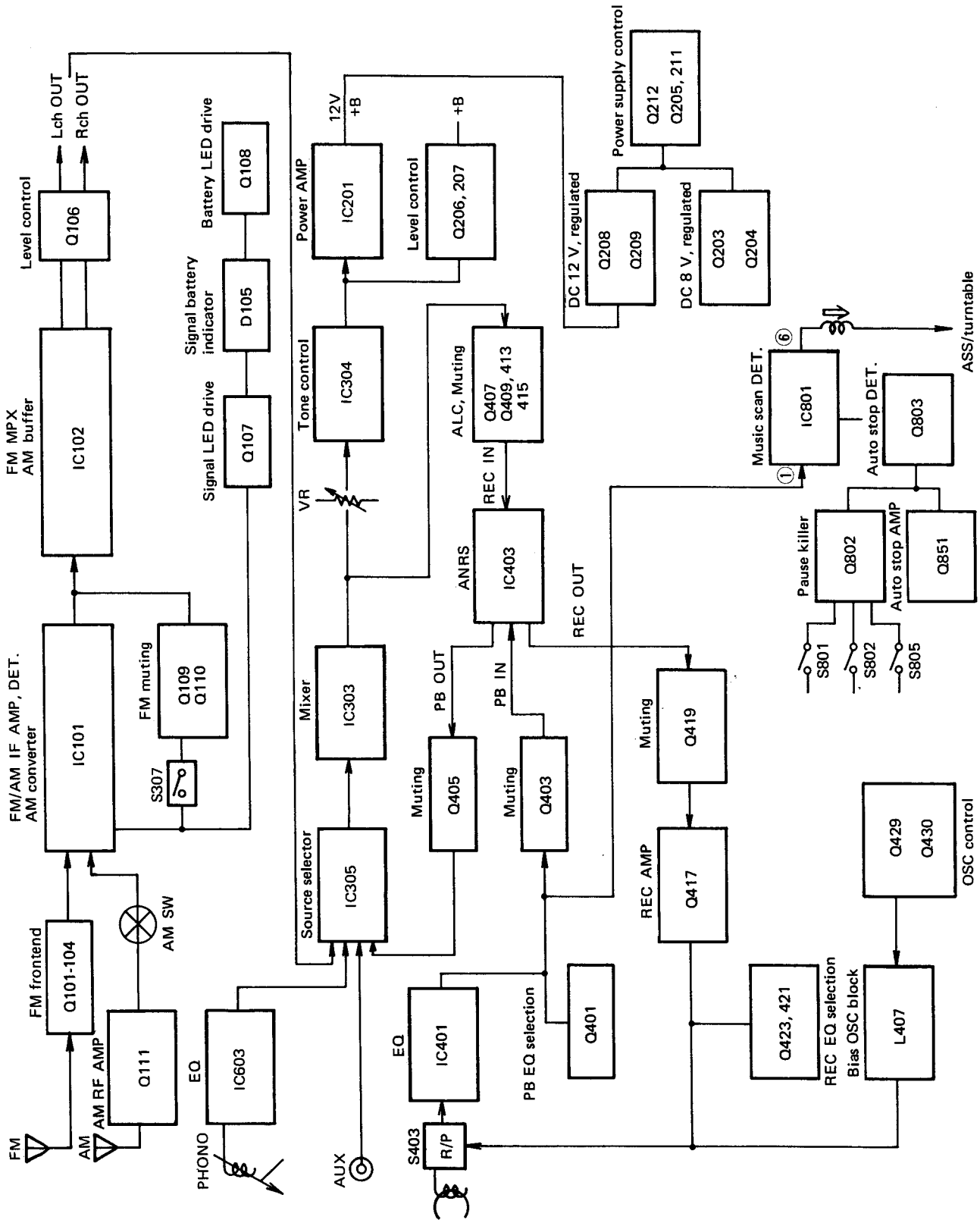


Fig. 33

9-(2) Turntable section

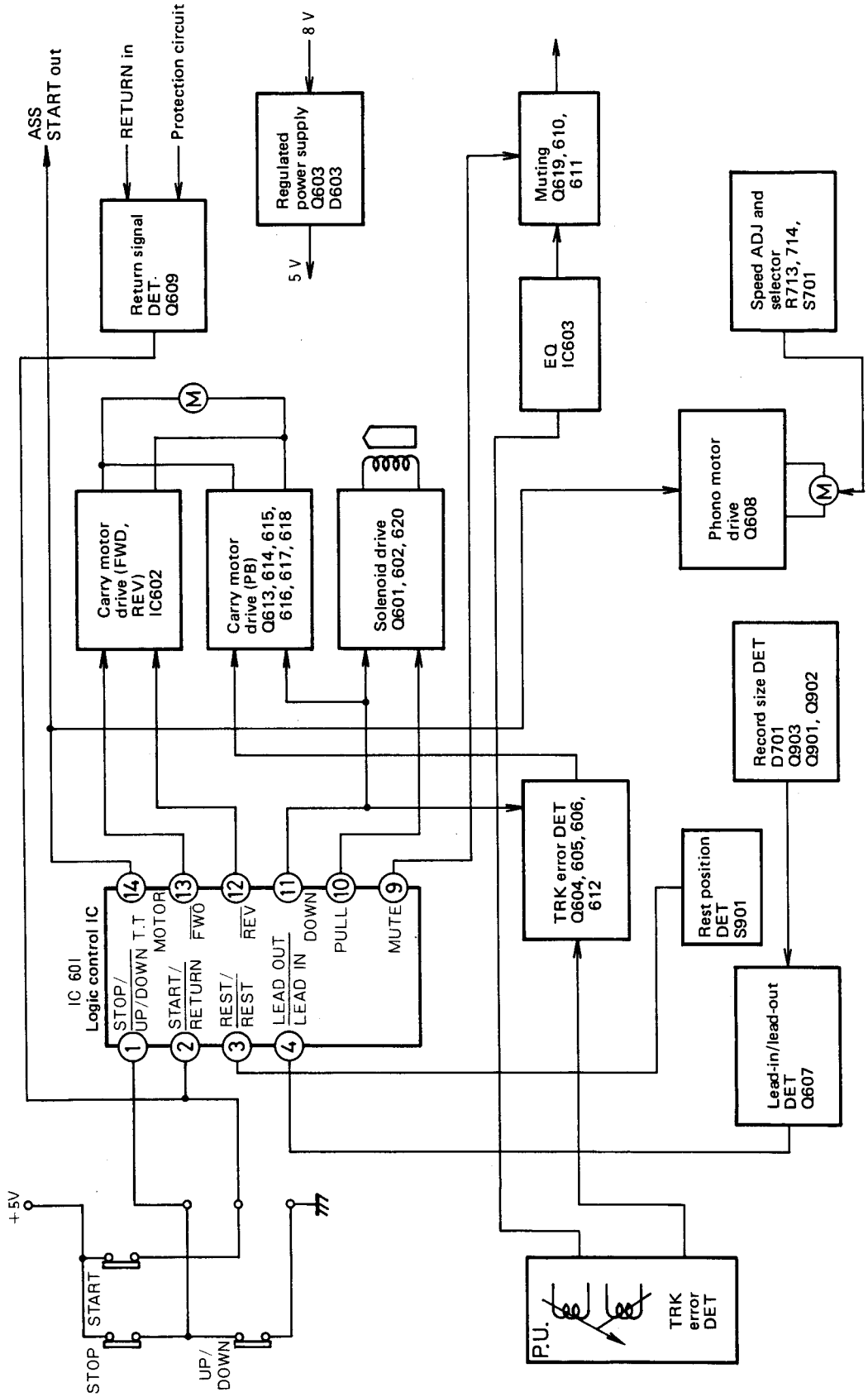


Fig. 34

10. Connection Diagrams

10-(1) Amplifier, tuner & deck section

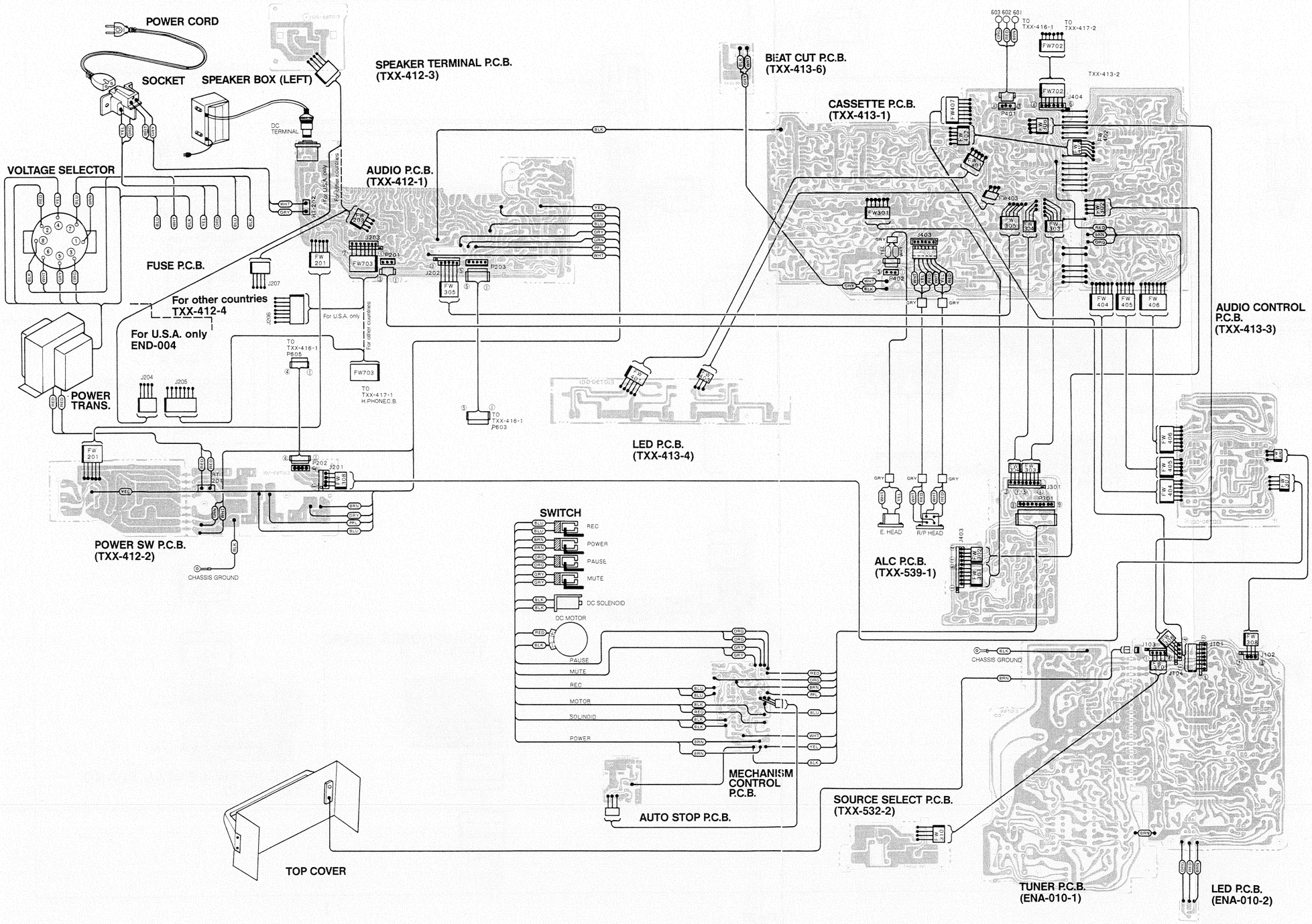


Fig. 35

10-(2) Turntable section

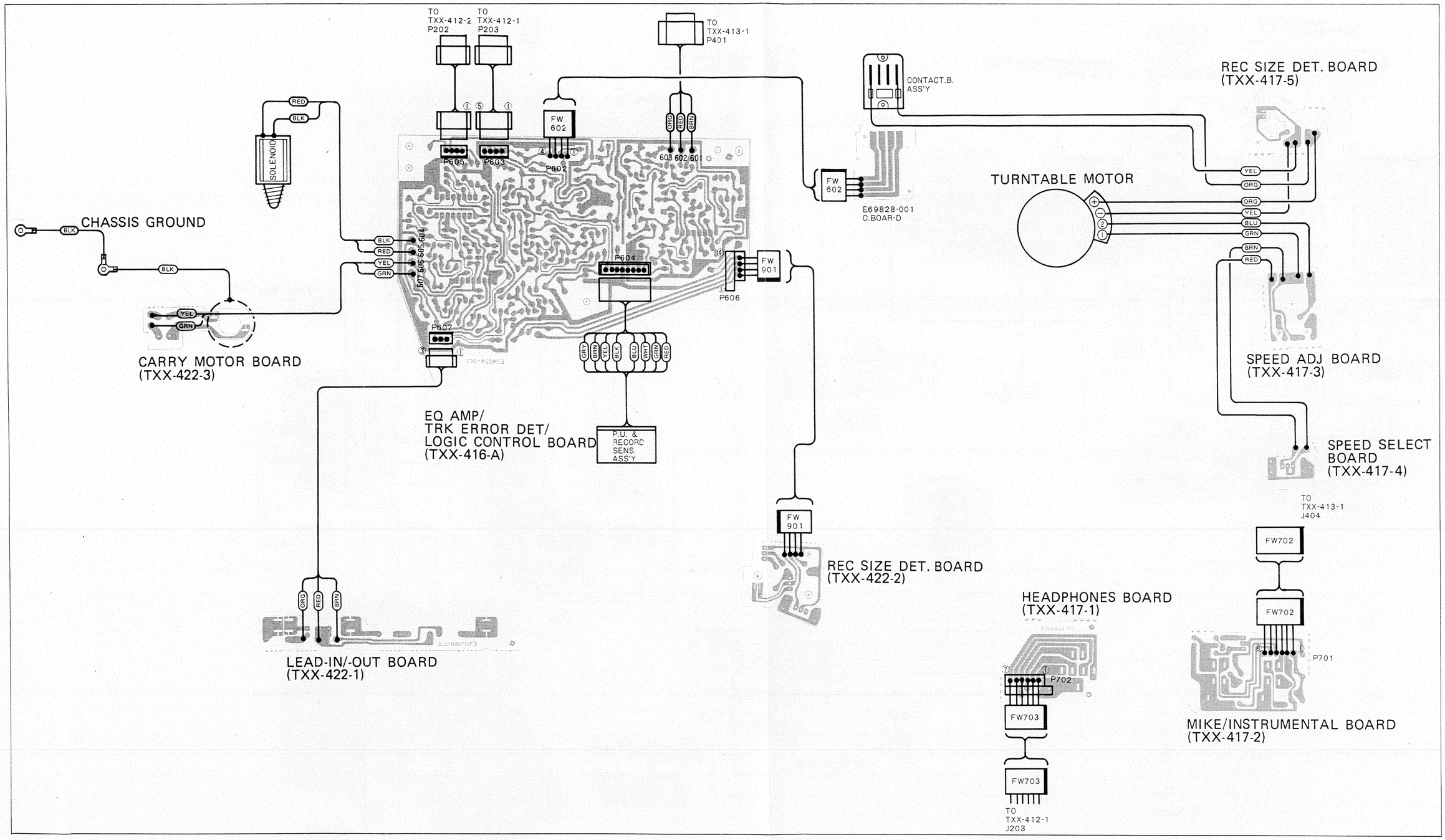


Fig. 36

11. CA-DC7 Exploded View and Parts List

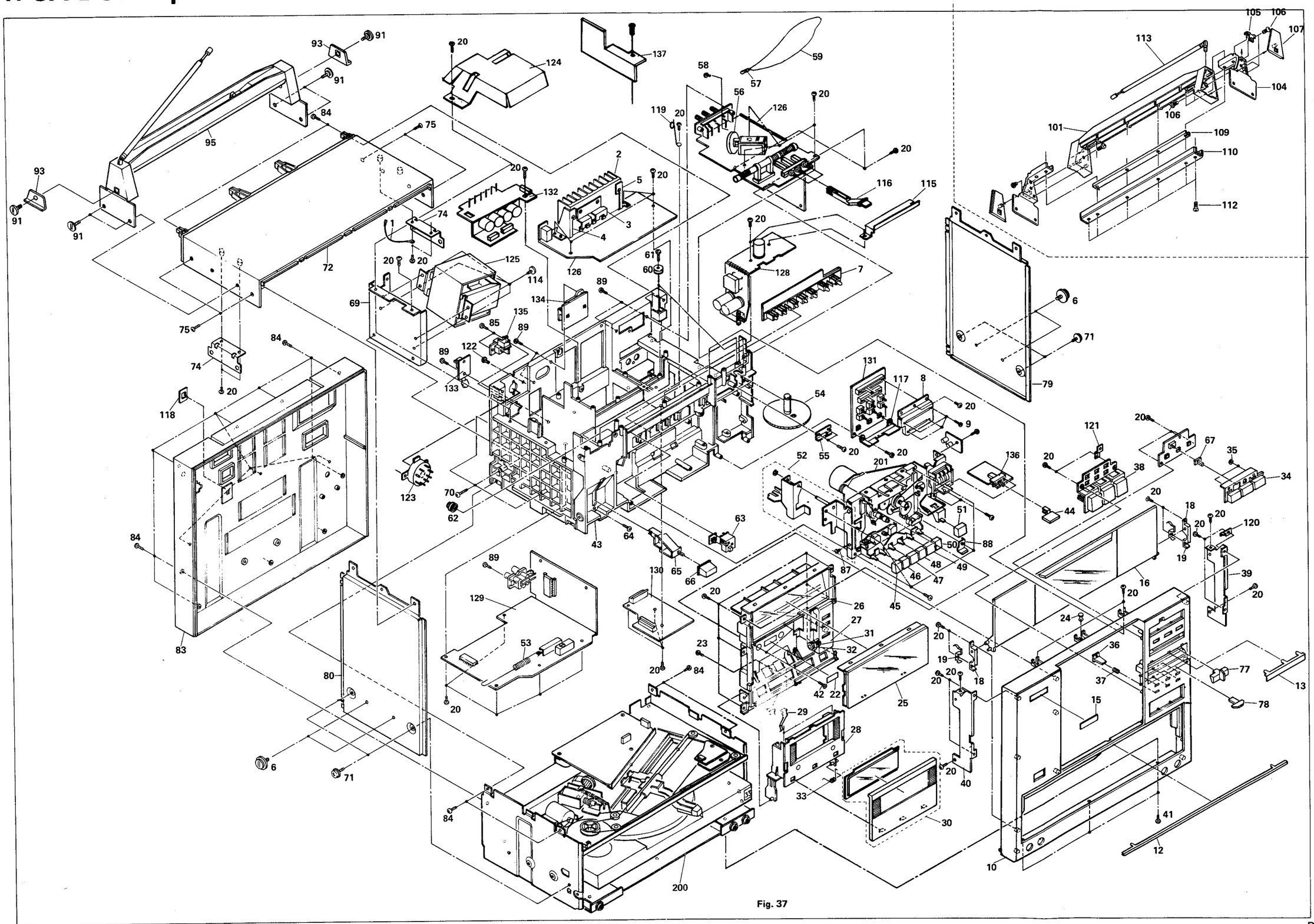


Fig. 37

Mechanical parts CA-DC7, CA-DC7L

Item No.	Part Number	Description	Q'ty	Remarks
1	EWT011-054	Terminal wire ass'y	1	
2	E69671-001	Heat sink	1	
3	E69825-001	Holder	1	
4	E69672-001	H.S. holder	1	
5	E69673-001	H.S. holder	1	
6	E69839-002	Special screw	4	Accessory
7	E302460-001	LED holder	1	
8	E69674-002	VR bracket	1	
9	SPSP2003M	Screw	4	
10	EFP-DC7 EFP-DC7L	Front panel Ass'y	1	DC7 DC-7L
12	E302455-001	Fitting	1	
13	E69597-005	VR plate	1	
15	E69599-003	Mark	1	
16	E24218-003	Door	1	
18	E69600-001	Door holder	2	
19	E69774-002	Holder spring	2	
20	SBSF3008Z	Screw	75	
21	E10759-001	Sub panel	1	
22	E69777-001	R plate	1	
23	SBSF3006Z	T. screw	1	
24	E48729-001	Plastic rivet	1	
25	E302359-002	Window	1	
26	E302360-002	Dial scale	1	DC7 – 002, DC7L – 003
27	E69598-001	Cass. panel	1	
28	E24225-002	Cass. holder	1	
29	VKY4180-001	Holder spring	2	
30	E69779-001	Holder cover ass'y	1	
31	VYH4866-001	Damper holder	1	
32	VYH4769-001	Gear	1	
33	E69818-001	Holder spring	1	
34	E302362-002	Push button	1	
35	E60912-003	Speed nut	2	
36	E69602-001	Push button	6	
37	E66722-016	Spring	6	
38	E302363-002	Push button	1	
39	E69606-001	Side bracket	1	
40	E69606-002	Side bracket	1	
41	SDSB3008N	T. screw	3	
42	SSST3006M	T. screw	2	
43	E10764-002	Mold chassis	1	
44	E69766-001	Push button	1	
45	E69759-001	Cass. knob	1	
46	E69760-001	Cass. knob	1	
47	E69761-001	Cass. knob	1	
48	E69762-001	Cass. knob	1	
49	E69763-001	Cass. knob	1	
50	E69764-001	Cass. knob	1	
51	E69765-001	Cass. knob	1	
52	E69783-001	REC arm ass'y	1	
53	E69692-001	REC spring	1	
54	E69657-003	Tuning ass'y	1	
55	E69660-001	Tuning bracket	1	
56	E302380-001	Dial drum	2	
57	E301777-010	Spring	1	
58	SPSP2606Z	Screw	2	
59	E32757-020	Dial rope	1	
60	E45020-001	Roller	2	
61	Y40530-001	Screw	2	
62	E66082-001	Roller ass'y	1	
63	E302379-001	Needle	1	
64	E65119-003	Special screw	1	
65	E69631-001	Push shaft	1	
66	E69601-002	Push button	1	
67	E69630-002	SW cap	1	
69	E302382-001	Trans. bracket	1	

Item No.	Part Number	Description	Q'ty	Remarks
70	SBSB3012Z	T. screw	6	
71	E61660-001	Special screw	4	
72	E10765-003	Cabinet case	1	
74	E69668-001	Handle plate	2	
75	SSSF3012M	T. screw	6	
77	E69604-001	Slide knob	1	
78	E69605-002	Slide knob	1	
79	E24238-009	Side cover	1	
80	E24238-010	Side cover	1	
83	E10766-001	Rear cover	1	
84	SDSB3010M	T. screw	6	
85	SBSB2608M	T. screw	2	
86	E50670-005	Wire clamp	3	
87	SPST2606Z	T. screw	2	
88	E70112-001	Support	1	
89	SBSF3010M	Screw	6	
91	E69839-001	Special screw	10	
93	E69838-003	Stopper	2	Silver
95	BH-DC7	Handle ass'y	1	Silver
101	E24232-003	Handle base	1	Silver
104	E302395-001	Hanger ass'y	1	
105	E69669-001	Holder	2	
106	SBSF3008N	T. screw	2	
107	E69695-003	Handle cap	2	Silver
109	E69696-001	Support bracket	1	
110	E302396-003	Handle cover	1	Silver
112	SSSB3012N	Screw	4	
113	QZR4215-001U	Rod ant.	1	
114	SDST4006Z	T. screw	4	
115	E70320-001	Protector	1	
116	E69603-001	Push button	3	
117	E70238-001	SW bracket	1	
118	E69780-001	Plate	1	
119	E70241-001	Wire clamp	1	
120	E70172-001	Earth plate	1	
121	E70173-001	Earth plate	1	
122	SBSB3010M	T. screw	2	
123	QSR0085-006U	Vol. select SW	1	
124	See back cover	Barrier	1	
125	ETP1050-03YA	Power Transformer	1	
126	See page 28	Tuner P.C. Board Ass'y	1	
127	See page 30	Audio P.C. Board Ass'y	1	
128	See page 30	Power Supply	1	
129	See page 32	Cassette P.C. Board	1	
130	See page 36	ALC P.C. Board	1	
131	See page 32	Control P.C. Board	1	
132	See page 40	AC Fuse P.C. Board	1	U.S.A. only
133	QSS2301-009	Beat cut switch	1	
134	QMC0439-004	Speaker Terminal	1	
135	See back cover	AC Inlet	1	
136	VSH1121-001	Switch Ass'y	3	Rec mute
137	See back cover	Barrier	1	
200	See page 22	Turntable Unit	1	
201	See page 24	Cassette Mechanism unit	1	

Turntable unit section (RPU-Y010)

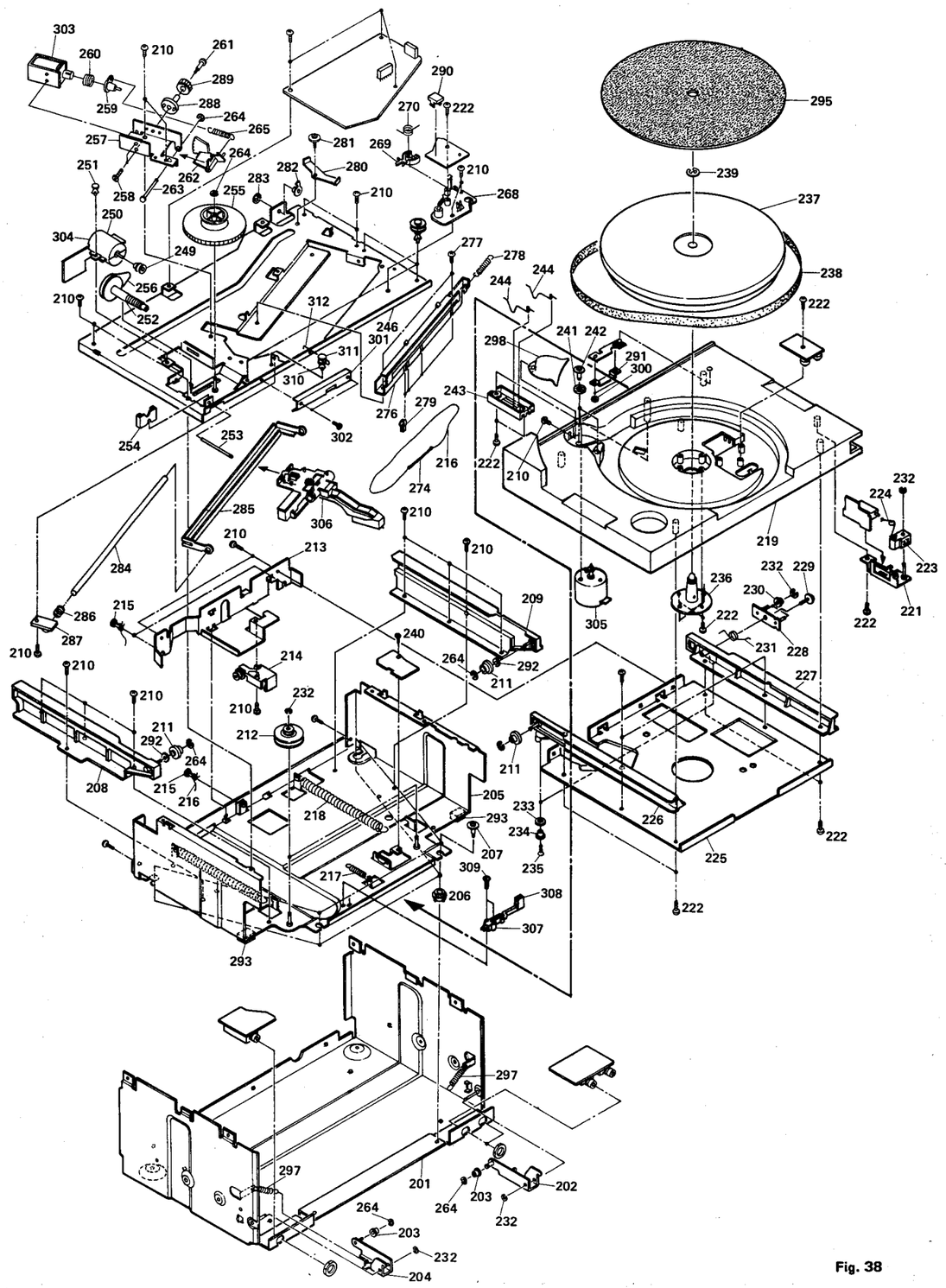


Fig. 38

Mechanical parts RPU-Y010

Item No.	Part Number	Description	Q'ty	Remarks
201	E10761-002	Bottom case	1	
202	E69653-003	Lock arm ass'y	1	
203	E69655-001	Roller	1	
204	E69653-004	Lock arm ass'y	1	
205	E10762-001	Main base	1	
206	E69639-001	Rubber	4	
207	E69638-001	Special screw	4	
208	E302376-002	Rail	1	
209	E302377-002	Rail	1	
210	E65119-001	Special screw	13	
211	E69628-001	Roller	3	
212	E69640-002	Pulley	2	
213	E302378-001	Damper bracket	1	
214	E302457-001	Damper	1	
215	EBS1337E-1	Rope Ass'y	1	
217	E301777-013	Spring	1	
218	E301777-017	Spring	2	
219	E10760-003	Motor board	1	
221	E69812-001	Bracket ass'y	1	
222	SBSF3008Z	Screw	15	
223	E302462-002	Button	1	
224	E69644-001	Spring	1	
225	E24223-002	Slide base	1	
226	E302371-002	Slide rail	1	
227	E302372-002	Slide rail	1	
228	E69648-001	Roller bracket ass'y	1	
229	E69816-001	Special screw	1	
230	E69650-001	Roller	2	
231	E69652-002	Spring	1	
232	REE2000X	E ring	7	
233	E69793-001	Side roller	2	
234	E69794-001	Collar	2	
235	SSSF3010Z	Screw	2	
236	E69632-002	Spindle ass'y	1	
237	E302664-002	Turntable	1	
238	E69782-001	Belt	1	
239	REE8000X	E ring	1	
240	SDST2004Z	Screw	2	
241	E43372-001	Rubber bushing	3	
242	E66042-004	Special screw	3	
243	E302470-001	Contact base	1	
244	E69835-003	Contact (A)	2	
246	E24222-001	Mechanism base	1	
249	E69608-001	Pulley	1	
250	E302364-001	Motor cover	1	
251	E48729-007	Plastic rivet	1	
252	E69609-002	Worm	1	
253	E69610-001	Shaft	1	
254	E69775-001	Clamp	1	
255	E69612-002	Gear	1	
256	E69611-001	Belt	1	
257	E69626-001	Damper bracket	1	
258	SSSP2604Z	Screw	2	
259	E69627-001	Push shaft	1	
260	E66722-017	Spring	1	
261	E69829-001	Special screw	1	
262	E302370-001	Damper gear	1	
263	E69795-001	Stud	1	
264	REE3000X	E ring	7	
265	E301777-012	Spring	1	
268	E302368-001	Size select	1	
269	E69616-002	Rest arm	1	
270	E69624-001	Spring	1	
274	E301777-003	Spring	1	

Item No.	Part Number	Description	Q'ty	Remarks
275	E66082-001	Roller ass'y	3	
276	E302366-003	Sensor base	1	
277	E67898-001	Special screw	4	
278	E301777-011	Spring	1	
279	E69614-001	Touch plate	4	
280	E69615-002	Adjust arm	1	
281	Y40542-001	Special screw	1	
282	E70168-001	Adjuster	1	
283	52514	Spring washer	1	
284	E69613-003	Carrier shaft	1	
285	E302365-002	Shift arm	1	
286	E66722-018	Spring	1	
287	E68468-002	Bracket	1	
288	E70044-001	Gear holder	1	
289	E70045-001	Gear	1	
290	E70062-001	Holder	1	
291	E70063-001	Cap	1	
293	Y40434-019	Spacer	2	
295	E302375-004	T.T. covering	1	
297	E301777-015	Spring	2	
298	E70064-003	Pulley cover	1	
300	E60912-003	Speed nut	2	
301	E70116-001	Bracket	1	
302	SPST2604Z	Special screw	2	
303	ENZ6001-002	Solenoid	1	
304	E300763-003	Motor (mechanism)	1	
305	VF02R06	Motor (T.T.)	1	
306	See back cover	Pickup ass'y	1	
	See back cover	Cartridge	1	
	See back cover	Stylus	1	
307	E301425-001	Switch	1	
308	E65778-004	Spacer	1	
309	SPST2008Z	T. screw	2	
310	E70233-001	Shaft	1	
311	E70234-001	Pin	1	
312	E70209-001	Wire clamp	1	

12. Cassette Mechanism Ass'y Exploded View and Parts List

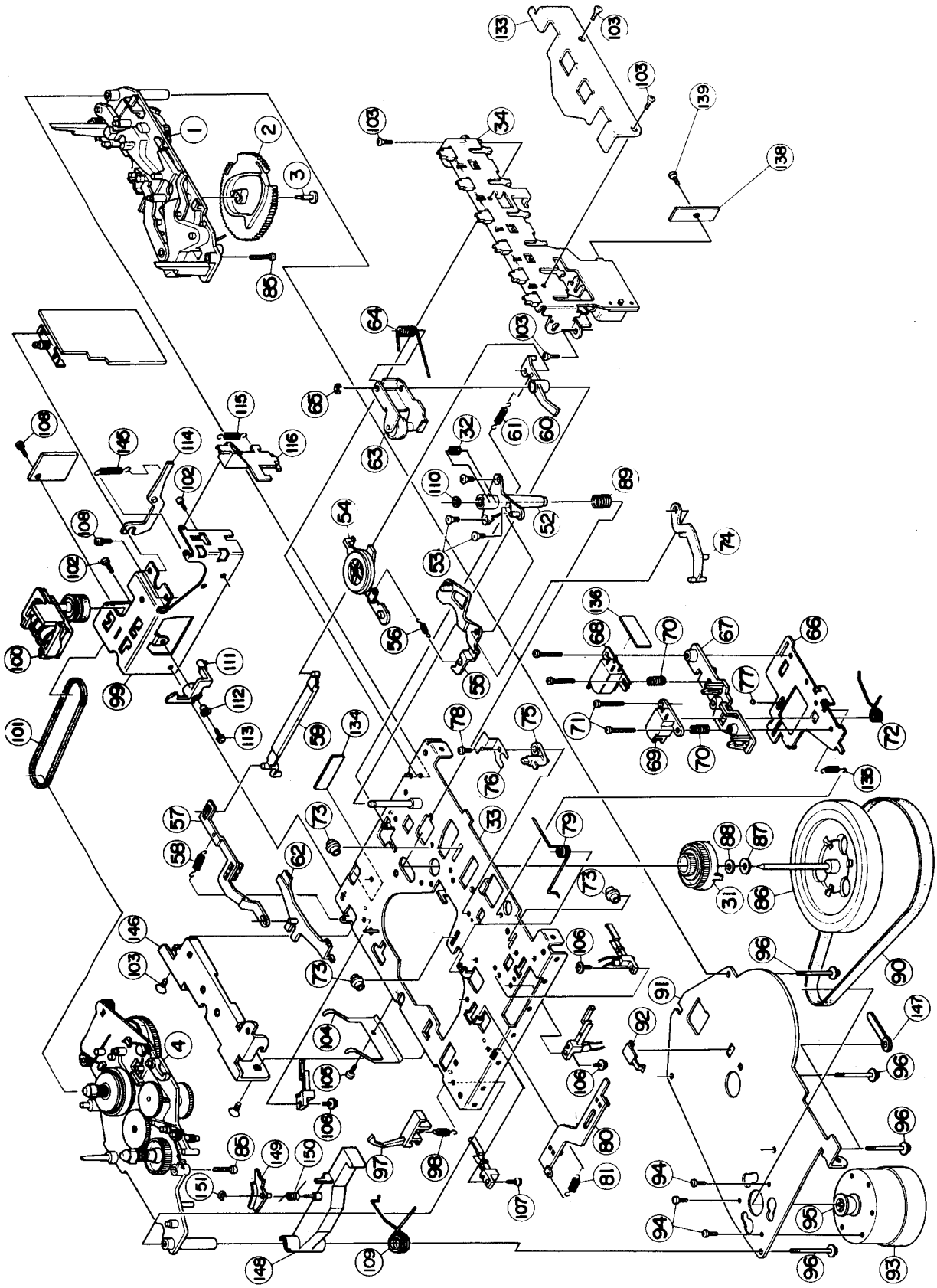
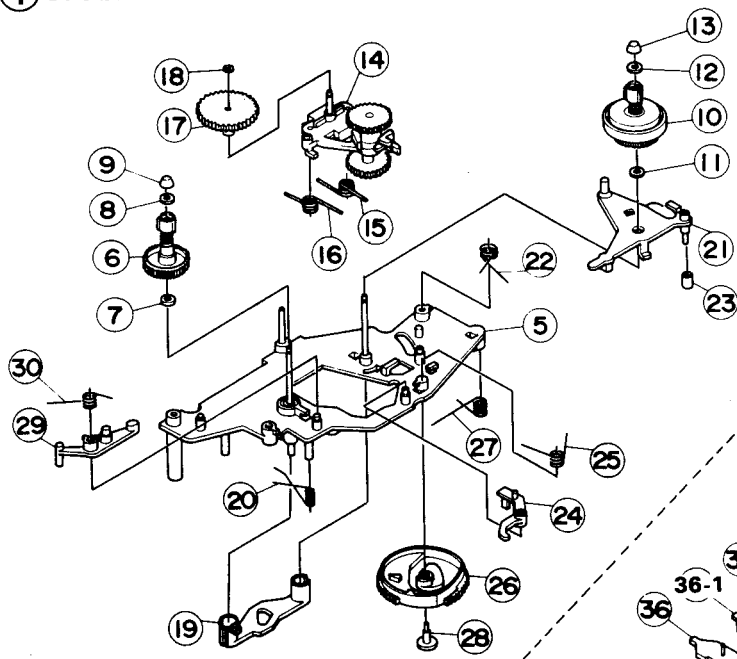
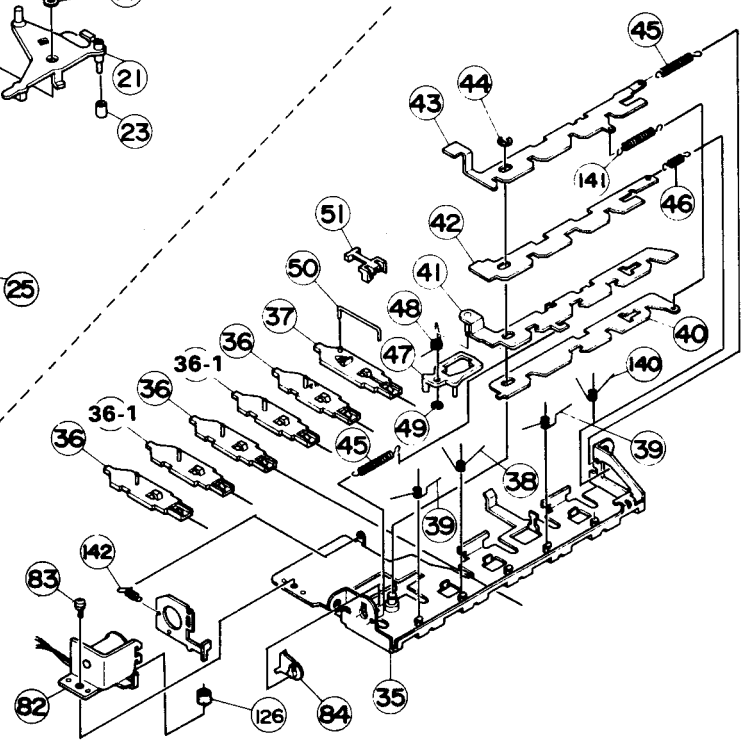


Fig. 39

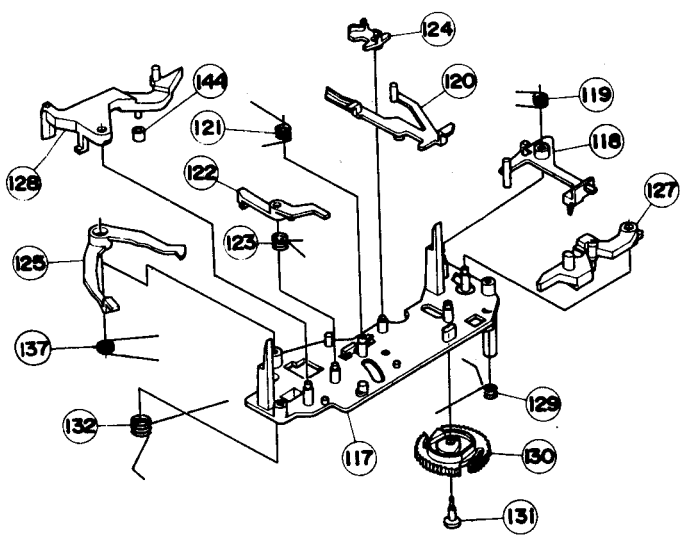
(4) Disc base unit



(34) Button case unit



(1) Main base ass'y



Parts list for cassette mechanism ass'y

Item No.	Part Number	Description	Q'ty	Remarks
1	VKS2114-00E	Main base ass'y	1	
2	VKS4411-001	Play cam	1	
3	VKS4410-002	Lock bush	1	Play cam
4	VKS2116-00D	Disc base unit	1	
5	VKS2117-00A	Disc base ass'y	1	
6	VKR4265-00A	Supply reel ass'y	1	
7	VKZ4003-003	Felt	1	Back tension
8	VKR4170-001	Ring	1	
9	VKS4131-001	Reel stopper	1	
10	VKR4276-00A	Takeup reel ass'y	1	
11	Q03093-838	Washer	1	
12	VKR4170-001	Ring	1	
13	VKS4131-001	Reel stopper	1	
14	VKS3148-00A	FR base ass'y	1	
15	VKW3006-031	Spring	1	FF
16	VKW3006-032	Spring	1	REW
17	VKR4271-001	REW gear	1	
18	VKZ4004-001	Special washer	1	REW gear
19	VKS4413-001	FR stopper	1	
20	VKW3006-033	Spring	1	FR base
21	VKS4414-00A	FR arm ass'y	1	
22	VKW3006-034	Spring	1	FR arm
23	VKH3000-045	Collar	1	FR arm
24	VKS4416-002	FR trigger	1	
25	VKW3006-035	Spring	1	FR trigger

Item No.	Part Number	Description	Q'ty	Remarks
26	VKS4417-001	FR cam	1	
27	VKW3006-036	Spring	1	FR cam
28	VKS4410-002	Lock bush	1	FR cam
29	VKS4418-001	Return lever	1	
30	VKW3006-045	Spring	1	Return
31	VKR4272-00A	FW gear ass'y	1	
32	VKR4276-001	Roller	1	
33	VKL3352-00A	Chassis base ass'y	1	
34	VKL3353-00E	Button case unit	1	
35	VKL3354-00A	Button case ass'y	1	
36	VKS4420-00A	Button ass'y	3	
36-1	VKS4420-00B	Button ass'y	2	
37	VKS3145-002	Pause button	1	
38	VKW4345-004	Spring	1	Button case ass'y
39	VKW4326-001	Spring	2	Button case ass'y
40	VKL3355-002	REC cam	1	
41	VKL5125-00A	Main cam ass'y	1	
42	VKL3357-002	Sub cam	1	
43	VKL3358-001	SW cam	1	
44	REE2500	E-ring	1	
45	VKW3002-094	Tension spring	2	SW cam ~ REC cam
46	VKW3002-095	Tension spring	1	Sub cam
47	VKS4422-001	Select arm	1	
48	VKW4340-001	Spring	1	Select arm
49	REE1500	E-ring	1	
50	VKW4327-002	Wire	1	
51	VKS4423-001	Wire stopper	1	
52	VKF4115-00A	Capstan metal ass'y	1	
53	SSST2604Z	Screw	3	
54	VKS4424-00A	Takeup idler ass'y	1	
55	VKS4427-001	Pause arm	1	
56	VKW3002-096	Tension spring	1	
57	VKS4428-002	Brake arm (1)		
58	VKW3002-097	Tension spring	1	Takeup
59	VKS4429-001	Brake lever	1	
60	VKS4430-002	Brake arm (2)	1	
61	VKW3002-097	Tension spring	1	Brake arm
62	VKS4431-003	Brake	1	
63	VKP4121-00A	Pinch roller arm ass'y	1	
64	VKW4356-001	Pinch roller spring	1	
65	REE2500	E-ring	1	
66	VKL3359-002	Slide base	1	
67	VKS2119-001	Head mount base	1	
68	VGH0421-009	REC/PB head ass'y	1	
69	VGH0212-103	Erase head ass'y	1	
70	VKW3001-020	Compression spring	2	REC/PB head, erase head
71	SPSX2010N	Screw	4	REC/PB head, erase head
72	VKW4342-002	Slide base spring	1	
73	VKS4432-002	Roller	3	
74	VKS4433-001	SW arm	1	
75	VKS4434-001	Cassette guide	1	
76	VKY4238-001	Spring plate	1	
77	T41615-004	Steel ball	1	
78	HPST2606Z	Screw	1	
79	VKW4341-001	Spring	1	Slide base
80	VKS4435-003	REC lever	1	
81	VKW3002-096	Tension spring	1	
82	VGP0601-012	Solenoid ass'y	1	
83	HPST2604Z	Screw	1	Main base, disc base
84	VKS4436-001	REC arm	1	
85	HPST2612Z	Screw	2	

Item No.	Part Number	Description	Q'ty	Remarks
86	VKF3120-00A	Flywheel ass'y	1	
87	Q03093-627	Washer	1	Thrust (large)
88	Q03093-827	Washer	1	Thrust (small)
89	VKW3001-010	Spring	1	Thrust
90	VKB3001-011	Belt	1	Capstan
91	VKL3360-002	F.M. bracket	1	
92	VKS4437-001	Thrust plate	1	
93	BFA2L74	DC motor	1	
94	SPSP2603Z	Screw	3	
95	VKS4139-002	Motor pulley	1	
96	VKZ4014-001	Special screw	4	
97	VKS4438-002	REC safety arm	1	
98	VKW3002-039	Tension spring	1	REC safety arm
99	VKL3398-002	Counter bracket	1	
100	VKC5153-001S	Tape counter	1	
101	VKB3000-028H	Belt		Counter
102	HPST2604Z	Screw	2	
103	SSST2605Z	Screw	2	Button case x 2
104	VKY4239-001	Pack spring	1	
105	HPST2604Z	Screw	1	Pack spring
106	SBSB2006Z	Screw	2	
107	SBSB2605Z	Screw	1	Leaf switch
108	LPSP3005Z	Screw	2	
109	VKW4374-003	Spring		
110	Q03093-522	Washer	1	Oil cut
111	VKS4439-002	Lock arm	1	Counter bracket
112	VKH3001-055	Flange collar	1	
113	LPSP2610Z	Ass'y screw	1	
114	VKS4440-001	Eject lever	1	
115	VKW3002-063	Tension spring	1	Eject button
116	VKS4510-001	Eject button	1	
117	VKS2115-001	Main base	1	
118	VKS4400-001	Pause trigger	1	
119	VKW3006-026	Spring	1	Pause trigger
120	VKS4401-001	FF lever	1	
121	VKW3006-027	Spring	1	FF lever
122	VKS4402-001	Play trigger	1	
123	VKW3006-028	Spring	1	Play trigger
124	VKS4403-002	FR safety	1	
125	VKS4404-001	REW lever	1	
126	QXT320H-005	UL vinyl tube	1	
127	VKS4405-00A	Pause arm ass'y	1	
128	VKS4483-001	Play arm ass'y	1	
129	VKW4333-001	Spring	1	Pause cam
130	VKS3147-001	Pause cam	1	
131	VKS4410-002	Lock bush	1	
132	VKW4334-001	Spring	1	Play cam
133	VKL5303-001	Button bracket	1	
134	VYSS1R5-007	Spacer	1	
135	VKW3002-099	Tension spring	1	
136	VMW4647-001	Board	1	
137	VKW3006-029	Spring	1	
138	VKL5256-002	Bracket	1	
139	SPSK1425M	Screw	1	
140	VKW4345-003	Spring	1	Button case
141	VKW3002-100	Tension spring	1	REC cam ~ SW cam
142	VKW3002-043	Tension spring	1	
144	VKH3000-053	Collar	1	
145	VKW3002-034	Tension spring	1	
146	VKL5338-001	Fix bracket	1	
147	VKZ4001-010	Wire holder	1	
148	VKS4492-00A	REC arm ass'y	1	
149	VKS4490-001	Select arm	1	
150	VKW3006-049	Spring	1	Select arm
151	REE1500	E-ring	1	

13. BA-DC7 Exploded View and Parts List

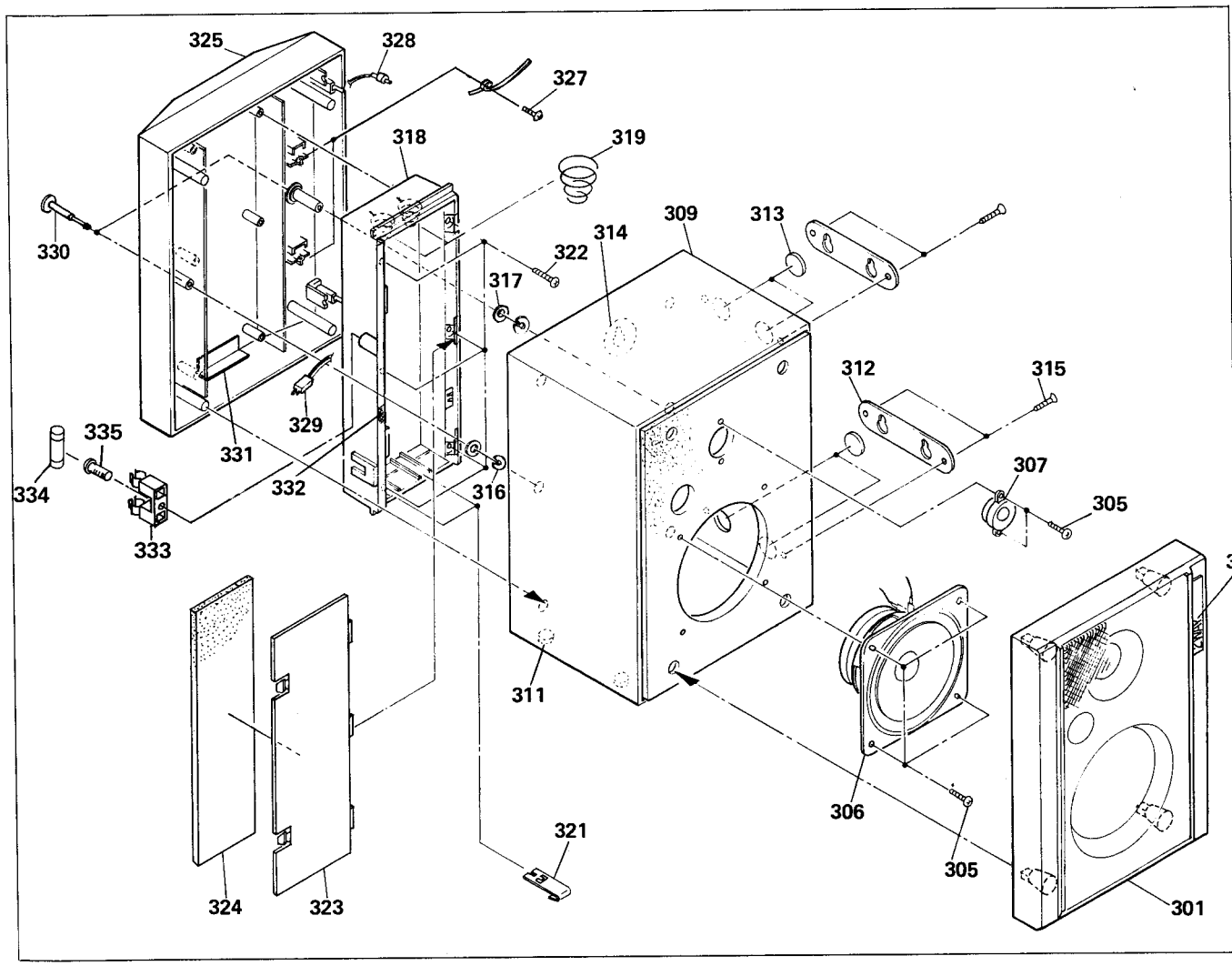


Fig. 40

Parts list

Item No.	Part Number	Description	Q'ty	Remarks
301	ED1773-003	Ornament ass'y	1	
303	ED43810-001	Mark	1	
305	SBSA3012Z	Screw	6	
306	HSA1228-01C	Speaker	1	Woofer
307	EAS-3FP10A	Speaker	1	Tweeter
309	ED1771-005	Cabinet ass'y (left)	1	
	ED1771-006	Cabinet ass'y (right)	1	
311	ED43740-001	Foot	2	
312	ED43739-001	Bracket	2	
313	VYH4934-001	Spacer	4	
314	E67644-001	Hanger plate	1	
315	SHSA3012Z	Screw	4	
316	E70085-001	C ring	2	
317	Q03091-110	Washer	2	
318	E10772-002	Box	1	U.S.A. & Canada Others – 003

Item No.	Part Number	Description	Q'ty	Remarks
319	E69831-001	Spring	2	
321	E69830-001	Battery contact	2	
322	SBSF3008M	Screw	6	
323	E24240-001	Cover	1	
324	EXO240060Q40	Spacer	1	
325	E10809-002	Base	1	
326	Q04141-3L	Wire clamp	2	
327	SBSF3008M	Screw	2	
328	EWP801-005	DC cord	1	
329	EWP107-002	Speaker cord	1	
330	E70016-002	Special screw	2	
331	E70052-001	Sheet	1	U.S.A. & Canada
332	E36997-124	P. sheet	1	
333	QMG1321-002	Fuse holder	1	
334	QMF51U1-2R5S	Fuse	1	U.S.A. & Canada
	QMF51A2-2R5L	Fuse	1	Others
335	SBSF3012Z	Screw	1	

14. Printed Circuit Board Ass'y and Parts List

14-(1) ENA-010□ tuner P.C. board ass'y

Note: ENA-010□-1 varies according to the areas employed. See back cover.

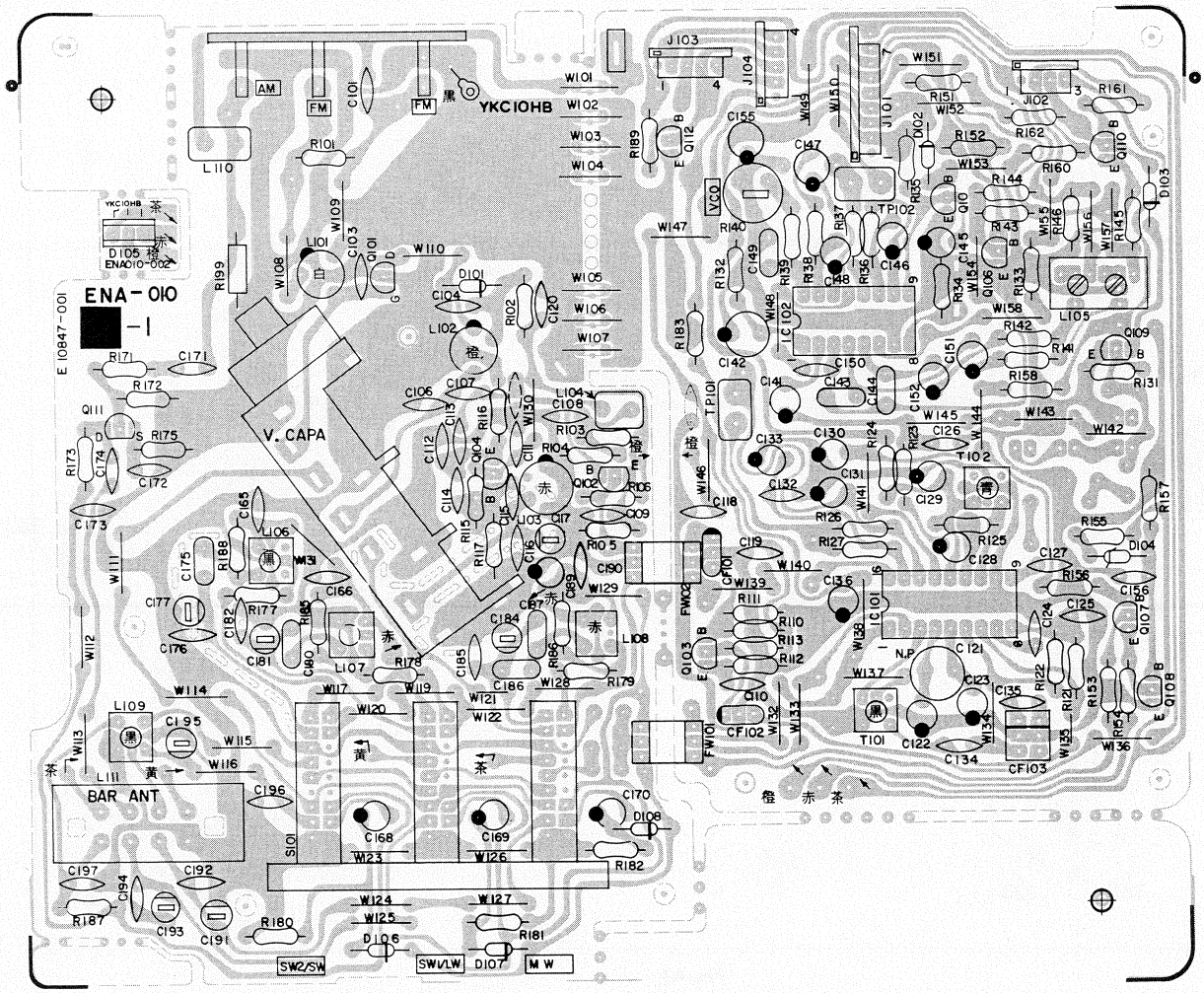


Fig. 41

ICs

ITEM	PART NUMBER	DESCRIPTION	
			MAKER
IC101	AN7222N		MATSUSHITA
IC102	AN7410N		MATSUSHITA

Transistors

ITEM	PART NUMBER	DESCRIPTION	
			MAKER
Q101	2SK168(E,F)	F.E.T.	HITACHI
Q102	2SC535(C)	SILICON	HITACHI
Q103	2SC535(C)	SILICON	HITACHI
Q104	2SC461(C)	SILICON	HITACHI
Q105	2SC1685(Q,R)	SILICON	MATSUSHITA
Q106	2SC1685(Q,R)	SILICON	MATSUSHITA
Q107	2SD655(E,F)	SILICON	HITACHI
Q108	2SC1685(Q,R)	SILICON	MATSUSHITA
Q109	2SD655(E,F)	SILICON	HITACHI
Q110	2SC1685(Q,R)	SILICON	MATSUSHITA
Q111	2SK105(E,F)	F.E.T.	NEC
Q112	2SC1685(Q,R)	SILICON	MATSUSHITA

Diodes

ITEM	PART NUMBER	DESCRIPTION	
			MAKER
D101	1S2076-31	SILICON	HITACHI
D102	1S2076-31	SILICON	HITACHI
D103	1S2076-31	SILICON	HITACHI
D104	RD6.2EB3	SILICON	NEC
D105	SLP541D	L.E.D.	SANYO
D106	1S2076-31	SILICON	HITACHI
D107	1S2076-31	SILICON	HITACHI
D108	1S2076-31	SILICON	HITACHI

Coils, Transformer and Filters

ITEM	PART NUMBER	DESCRIPTION
L101	EQR2304-007	FM ANTENNA COIL
L102	EQR2304-008	FM RF COIL
L103	EQR2404-005	FM OSC COIL
L104	EQL3001-1R5KY	INDUCTOR
L105	EQF0101-002	FILTER
L106	EQR1407-003	RF COIL
L107	See page 30	RF COIL
L109	EQR1107-002	RF COIL
L110	EQL3001-391KY	INDUCTOR
L111	See page 30	BAR ANTENNA
L113	EQL0001-2R2KY	CHOKE COIL
T101	EQT1021-003	AM I.F.TRANSFOMER
T102	EQT2140-007	FM DET COIL
CF101	ECB2123-002	CERAMIC FILTER
CF102	ECB2123-002	CERAMIC FILTER
CF103	ECB1545-001	CERAMIC FILTER

Resistors

ITEM	PART NUMBER	DESCRIPTION		
R101	QRD141J-102S	1K	1/4W	CARBON
R102	QRD141J-471S	470	1/4W	CARBON
R103	QRD141J-103S	10K	1/4W	CARBON
R104	QRD141J-222S	2.2K	1/4W	CARBON
R105	QRD141J-151S	150	1/4W	CARBON
R106	QRD141J-471S	470	1/4W	CARBON
R110	QRD141J-273S	27K	1/4W	CARBON
R111	QRD141J-153S	15K	1/4W	CARBON
R112	QRD141J-391S	390	1/4W	CARBON
R113	QRD141J-471S	470	1/4W	CARBON
R115	QRD141J-822S	8.2K	1/4W	CARBON
R116	QRD141J-102S	1K	1/4W	CARBON
R117	QRD141J-682S	6.8K	1/4W	CARBON
R121	QRD141J-471S	470	1/4W	CARBON
R122	QRD141J-222S	2.2K	1/4W	CARBON
R123	QRD141J-471S	470	1/4W	CARBON
R124	QRD141J-820S	82	1/4W	CARBON
R125	QRD141J-392S	3.9K	1/4W	CARBON
R126	QRD141J-821S	820	1/4W	CARBON
R127	QRD141J-103S	10K	1/4W	CARBON
R131	QRD141J-224S	220K	1/4W	CARBON
R132	QRD141J-121S	120	1/4W	CARBON
R133	QRD141J-471S	470	1/4W	CARBON
R134	QRD141J-103S	10K	1/4W	CARBON
R135	QRD141J-223S	22K	1/4W	CARBON
R136	QRD141J-103S	10K	1/4W	CARBON
R138	QRD141J-102S	1K	1/4W	CARBON
R139	QRD141J-183S	18K	1/4W	CARBON
R140	QVP4A0B-103	10K		VARIABLE
R141	QRD141J-182S	1.8K	1/4W	CARBON
R142	QRD141J-182S	1.8K	1/4W	CARBON
R143	QRD141J-392S	3.9K	1/4W	CARBON
R144	QRD141J-392S	3.9K	1/4W	CARBON
R145	QRD141J-223S	22K	1/4W	CARBON
R146	QRD141J-223S	22K	1/4W	CARBON
R151	QRD141J-333S	33K	1/4W	CARBON
R153	QRD141J-821S	820	1/4W	CARBON
R154	QRD141J-471S	470	1/4W	CARBON
R155	QRD141J-681S	680	1/4W	CARBON
R156	QRD141J-102S	1K	1/4W	CARBON
R157	QRD141J-472S	4.7K	1/4W	CARBON
R158	QRD141J-682S	6.8K	1/4W	CARBON
R160	QRD141J-223S	22K	1/4W	CARBON
R161	QRD141J-223S	22K	1/4W	CARBON
R162	QRD141J-333S	33K	1/4W	CARBON
R171	QRD141J-101S	100	1/4W	CARBON
R172	QRD141J-104S	100K	1/4W	CARBON
R173	QRD141J-102S	1K	1/4W	CARBON
R175	QRD141J-101S	100	1/4W	CARBON
R177	QRD141J-100S	10	1/4W	CARBON
R178	See page 30			
R180	QRD141J-473S	47K	1/4W	CARBON
R181	QRD141J-473S	47K	1/4W	CARBON
R182	QRD141J-473S	47K	1/4W	CARBON
R183	QRD141J-681S	680	1/4W	CARBON
R186	QRD141J-102S	1K	1/4W	CARBON
R187	QRD141J-220S	22	1/4W	CARBON
R188	QRD141J-681S	680	1/4W	CARBON
R189	QRD141J-563S	56K	1/4W	CARBON
R197	QRD141J-100S	10	1/4W	CARBON
R199	QRD141J-220S	22	1/4W	CARBON
R220	QRD141J-220S	22	1/4W	CARBON

Capacitors

ITEM	PART NUMBER	DESCRIPTION		
C101	QCS31HJ-150Z	15PF	50V	CERAMIC
C103	QCS31HJ-100Z	10PF	50V	CERAMIC
C104	QCF31HP-103Z	0.01UF	50V	CERAMIC
C106	QCS31HJ-180Z	18PF	50V	CERAMIC
C107	QCS31HJ-5R0Z	5.0PF	50V	CERAMIC
C108	QCS31HJ-151Z	150PF	50V	CERAMIC
C109	QCF31HP-103Z	0.01UF	50V	CERAMIC
C110	QCF31HP-223Z	0.022UF	50V	CERAMIC
C111	QCF31HP-223Z	0.022UF	50V	CERAMIC
C112	QCT25CH-100Z	10PF	50V	CERAMIC
C113	QCS31HJ-3R0Z	3.0PF	50V	CERAMIC
C114	QCT25CH-220Z	22PF	50V	CERAMIC
C115	QCT25UJ-7R0Z	7.0PF	50V	CERAMIC
C116	QCT25UH-270Z	27PF	50V	CERAMIC
C117	ENZ1003-002			TRIMMER
C118	QCF31HP-223Z	0.022UF	50V	CERAMIC
C119	QCF31HP-223Z	0.022UF	50V	CERAMIC
C121	QEN61HM-475Z	4.7UF	50V	NON POLE
C122	QET61AM-476ZM	47UF	10V	ELECTRO
C123	QET61HM-105ZM	1UF	50V	ELECTRO

Capacitors

ITEM	PART NUMBER	DESCRIPTION		
C124	QCF31HP-223Z	0.022UF	50V	CERAMIC
C125	QCF31HP-223Z	0.022UF	50V	CERAMIC
C126	QCS31HJ-271Z	220PF	50V	CERAMIC
C127	QCF31HP-223Z	0.022UF	50V	CERAMIC
C128	QET61EM-106ZM	10UF	25V	ELECTRO
C129	QET61AM-476ZM	47UF	10V	ELECTRO
C130	QET61AM-476ZM	47UF	10V	ELECTRO
C131	QET61EM-106ZM	10UF	25V	ELECTRO
C132	QCF31HP-103Z	0.01UF	50V	CERAMIC
C133	QET61AM-476ZM	47UF	10V	ELECTRO
C134	QCS31HJ-8R0Z	8.0PF	50V	CERAMIC
C135	QCS31HJ-560Z	56PF	50V	CERAMIC
C136	QET61AM-107ZM	100UF	10V	ELECTRO
C141	QET61EM-106ZM	10UF	25V	ELECTRO
C142	QET51AM-227	220UF	10V	ELECTRO
C143	See page 30			
C144	See page 30			
C145	QET61HM-474ZM	0.47UF	50V	ELECTRO
C146	QET61HM-475ZM	4.7UF	50V	ELECTRO
C147	QET61HM-474ZM	0.47UF	50V	ELECTRO
C148	QEB61HM-224Z	0.22UF	50V	L.L.C.E.
C149	QFP31HJ-471	470PF	50V	POLY
C150	QCF31HP-473Z	0.047UF	50V	CERAMIC
C151	QET61EM-475ZM	4.7UF	25V	ELECTRO
C152	QET61EM-475ZM	4.7UF	25V	ELECTRO
C155	QET61AM-476ZM	47UF	10V	ELECTRO
C156	QCF31HP-223Z	0.022UF	50V	CERAMIC
C165	QCF31HP-473Z	0.047UF	50V	CERAMIC
C166	See page 30			
C167	QCF31HP-473Z	0.047UF	50V	CERAMIC
C168	QET61HM-225ZM	2.2UF	50V	ELECTRO
C169	QET61HM-225ZM	2.2UF	50V	ELECTRO
C170	QET61HM-225ZM	2.2UF	50V	ELECTRO
C171	QCF31HP-102Z	1000PF	50V	CERAMIC
C172	QCF31HP-223Z	0.022UF	50V	CERAMIC
C173	QCF31HP-223Z	0.022UF	50V	CERAMIC
C174	QCF31HP-473Z	0.047UF	50V	CERAMIC
C175	QFP31HJ-472	4700PF	50V	POLY
C176	QCT25UJ-6R0Z	6.0PF	50V	CERAMIC
C177	ENZ1003-002			TRIMMER
C180	See page 30			
C181	ENZ1003-002			TRIMMER
C182	See page 30			
C184	ENZ1003-002			TRIMMER
C185	QCS31HJ-270Z	27PF	50V	CERAMIC
C186	QFP31HJ-361Z	0.022UF	50V	POLY
C187	QFP31HJ-101Z	100PF	50V	POLY
C189	QET61CM-476ZM	47UF	16V	ELECTRO
C190	QCF31HP-223Z	0.022UF	50V	CERAMIC
C191	ENZ1003-002			TRIMMER
C192	QCS31HJ-5R0Z	5PF	50V	CERAMIC
C193	ENZ1003-002			TRIMMER
C194	See page 30			
C195	ENZ1003-002			TRIMMER
C196	QCS31HJ-220Z	22PF	50V	CERAMIC
C199	QCS31HJ-150Z	15PF	50V	CERAMIC
C200	QCS31HJ-100Z	10PF	50V	CERAMIC

Others

ITEM	PART NUMBER	DESCRIPTION
	EWT011-055	TERMNAL WIRE ASS'Y
	A41096	TAB
	E10847-001	CIRCUIT BOARD
	E302380-001	DIAL DRUM
	SPSP2606Z	SCREW
J101	E04365-007	F.W.SOCKET
J102	E04365-003	3P SOCKET
J103	E04365-004	JAMPER SOCKET
J104	E04365-004	JAMPER SOCKET
S101	QST5361-E01	PUSH SWITCH
TP101	E67764-002	TERMINAL ASS'Y
TP102	E67764-002	TERMINAL ASS'Y

14-(4) TXX-534B ALC P.C. board ass'y

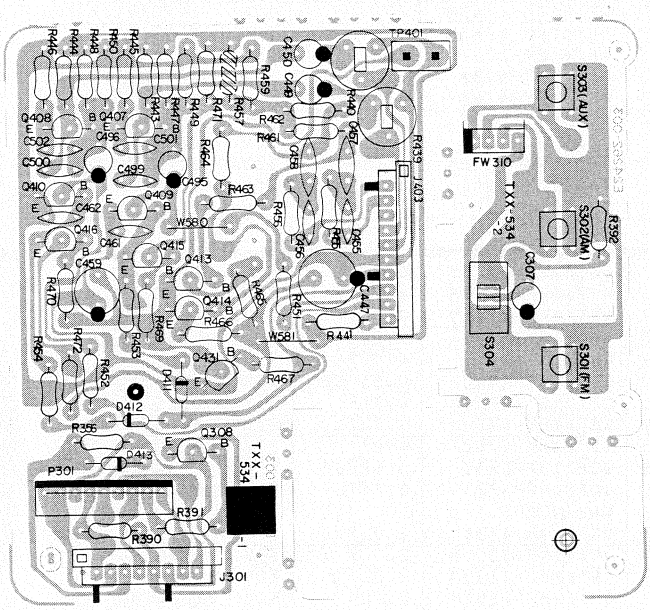


Fig. 44

Transistors

ITEM	PART NUMBER	DESCRIPTION	
			MAKER
Q308	2SC1685(Q,R)	SILICON	MATSUSHITA
Q407	2SC1775AV(E)	SILICON	HITACHI
Q408	2SC1775AV(E)	SILICON	HITACHI
Q409	2SC458(D)	SILICON	HITACHI
Q410	2SC458(D)	SILICON	HITACHI
Q413	2SC458(D)	SILICON	HITACHI
Q414	2SC458(D)	SILICON	HITACHI
Q415	2SC458(D)	SILICON	HITACHI
Q416	2SC458(D)	SILICON	HITACHI

Resistors

ITEM	PART NUMBER	DESCRIPTION	
R356	QRD141J-103S	10K	1/4W CARBON
R390	QRD148J-103S	10K	1/4W CARBON
R391	QRD141J-103S	10K	1/4W CARBON
R392	QRD141J-563S	56K	1/4W CARBON
R439	QVP4A0B-473	47K	VARIABLE
R440	QVP4A0B-473	47K	VARIABLE
R441	QRD141J-101S	100	1/4W CARBON
R443	QRD141J-682S	6.8K	1/4W CARBON
R444	QRD141J-682S	6.8K	1/4W CARBON
R445	QRD141J-821S	820	1/4W CARBON
R446	QRD141J-821S	820	1/4W CARBON
R447	QRD141J-473S	47K	1/4W CARBON
R448	QRD141J-473S	47K	1/4W CARBON
R449	QRD141J-562S	5.6K	1/4W CARBON
R450	QRD141J-562S	5.6K	1/4W CARBON
R451	QRD141J-333S	33K	1/4W CARBON
R452	QRD141J-333S	33K	1/4W CARBON
R453	QRD141J-103S	10K	1/4W CARBON
R454	QRD141J-103S	10K	1/4W CARBON
R455	QRD141J-103S	10K	1/4W CARBON

Resistors

ITEM	PART NUMBER	DESCRIPTION	
R456	QRD141J-103S	10K	1/4W CARBON
R457	QRD141J-123S	12K	1/4W CARBON
R458	QRD141J-123S	12K	1/4W CARBON
R459	QRD141J-561S	560	1/4W CARBON
R461	QRD141J-683S	68K	1/4W CARBON
R462	QRD141J-683S	68K	1/4W CARBON
R463	QRD141J-333S	33K	1/4W CARBON
R464	QRD141J-333S	33K	1/4W CARBON
R465	QRD148J-220S	22	1/4W CARBON
R466	QRD141J-220S	22	1/4W CARBON
R467	QRD148J-475S	4.7M	1/4W CARBON
R468	QRD148J-475S	4.7M	1/4W CARBON
R469	QRD141J-223S	22K	1/4W CARBON
R470	QRD141J-223S	22K	1/4W CARBON
R471	QRD141J-102S	1K	1/4W CARBON
R472	QRD141J-102S	1K	1/4W CARBON
R473	QRD149J-560S	56	1/4W UNF.CARBON

Capacitors

ITEM	PART NUMBER	DESCRIPTION		
C307	QET51EM-106	10UF	25V	ELECTRO
C447	QET51CM-477	470UF	16V	ELECTRO
C449	QET51HM-105	1UF	50V	ELECTRO
C450	QET51HM-105	1UF	50V	ELECTRO
C453	QET51HM-105	1UF	50V	ELECTRO
C454	QET51HM-105	1UF	50V	ELECTRO
C455	QCY21HK-472	4700PF	50V	CERAMIC
C456	QCY21HK-472	4700PF	50V	CERAMIC
C457	QCF21HP-473	0.047UF	50V	CERAMIC
C458	QCF21HP-473	0.047UF	50V	CERAMIC
C459	QET51CM-107	100UF	16V	ELECTRO
C461	QCS21HJ-101	100PF	50V	CERAMIC
C462	QCS21HJ-101	100PF	50V	CERAMIC
C495	QEB51EM-106	10UF	50V	L.L.C.E.
C496	QEB51EM-106	10UF	50V	L.L.C.E.
C499	QCS21HJ-270	27PF	50V	CERAMIC
C500	QCS21HJ-270	27PF	50V	CERAMIC
C501	QCS21HJ-101	100PF	50V	CERAMIC
C502	QCS21HJ-101	100PF	50V	CERAMIC

Diodes

ITEM	PART NUMBER	DESCRIPTION	
			MAKER
D411	MA150	SILICON	MATSUSHITA
D412	MA150	SILICON	MATSUSHITA
D413	MA150	SILICON	MATSUSHITA

Others

ITEM	PART NUMBER	DESCRIPTION
	E24262-003	CIRCUIT BOARD
J301	E04365-008	8P CONNECTOR
J403	E04365-010	F.W.SOCKET
P301	QMV5005-009	9P PLUG ASS'Y
P404	QMV5005-009	9P PLUG ASS'Y
P405	QMV5005-009	9P PLUG ASS'Y
P406	QMV5005-009	9P PLUG ASS'Y
S301	ESP0001-007	PUSH SWITCH
S302	ESP0001-007	PUSH SWITCH
S303	ESP0001-007	PUSH SWITCH
S304	QSS2201-024	SLIDE SWITCH
TP401	E67764-002	TERMINAL ASS'Y

14-(5) TXX-416□ mechanism logic P.C. board ass'y

Note: TXX-416□-1 varies according to the areas employed. See back cover.

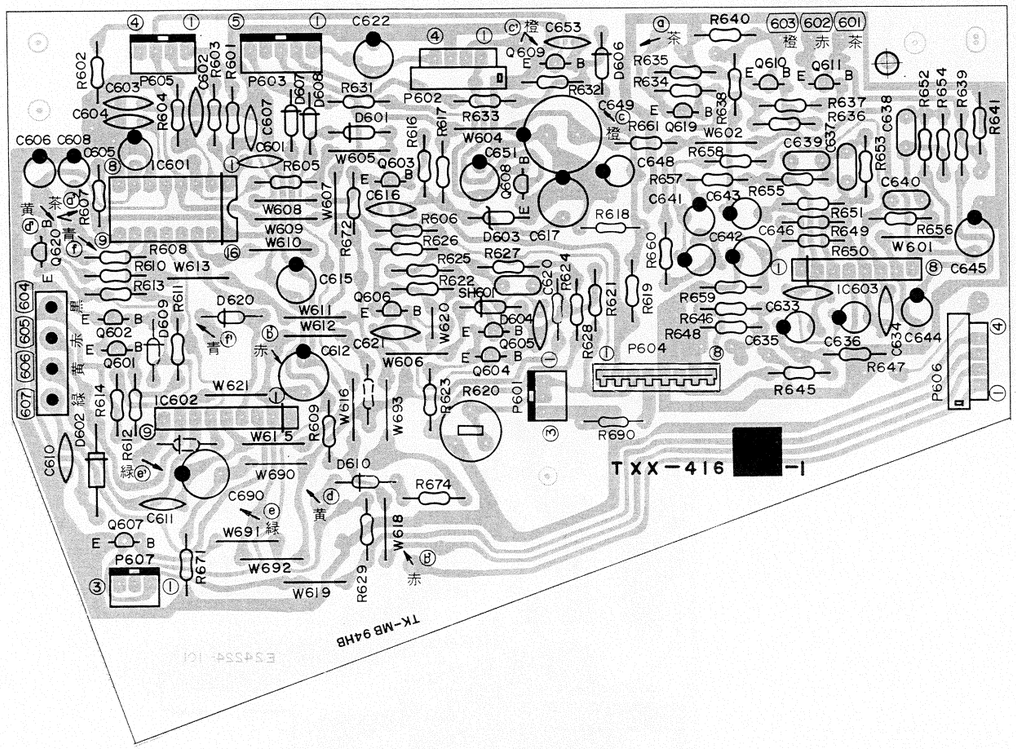


Fig. 45

ICs

ITEM	PART NUMBER	DESCRIPTION	MAKER
IC601	M54981P		RYOYO
IC602	M54543L		RYOYO
IC603	M5218L-R		RYOYO

Transistors

ITEM	PART NUMBER	DESCRIPTION	MAKER
Q601	2SC3246(J,K)	SILICON	RYOYO
Q602	2SC3246(J,K)	SILICON	RYOYO
Q603	2SC3246(J,K)	SILICON	RYOYO
Q604	2SC458(C)	SILICON	HITACHI
Q605	2SC458(C)	SILICON	HITACHI
Q606	2SA1029(C)	SILICON	HITACHI
Q607	2SC458(C)	SILICON	HITACHI
Q608	2SC3246(J,K)	SILICON	RYOYO
Q609	2SC458(C)	SILICON	HITACHI
Q610	2SD655(E,F)	SILICON	HITACHI

Transistors

ITEM	PART NUMBER	DESCRIPTION	MAKER
Q611	2SD655(E,F)	SILICON	HITACHI
Q612	2SC1685(Q,R)	SILICON	MATSUSHITA
Q613	2SC1685(Q,R)	SILICON	MATSUSHITA
Q614	2SC1685(Q,R)	SILICON	MATSUSHITA
Q615	2SC1685(Q,R)	SILICON	MATSUSHITA
Q616	2SC3246(J,K)	SILICON	RYOYO
Q617	2SC458(C)	SILICON	HITACHI
Q618	2SB562(C)	SILICON	HITACHI
Q619	2SA1029(C)	SILICON	HITACHI
Q620	2SA1029(C)	SILICON	HITACHI

Diodes

ITEM	PART NUMBER	DESCRIPTION	MAKER
D601	1S2076-31	SILICON	HITACHI
D603	RD5.6EB3	SILICON	NEC
D604	1S2076-31	SILICON	HITACHI
D605	1S2076-31	SILICON	HITACHI
D606	1S2076-31	SILICON	HITACHI
D607	1S2076-31	SILICON	HITACHI
D608	1S2076-31	SILICON	HITACHI
D609	1S2076-31	SILICON	HITACHI
D610	1S2076-31	SILICON	HITACHI

Resistors

ITEM	PART NUMBER	DESCRIPTION		
R601	QRD141J-471S	470	1/4W	CARBON
R602	QRD141J-471S	470	1/4W	CARBON
R603	QRD141J-472S	4.7K	1/4W	CARBON
R604	QRD141J-472S	4.7K	1/4W	CARBON
R605	QRD141J-472S	4.7K	1/4W	CARBON
R606	QRD141J-271S	270	1/4W	CARBON
R607	QRD141J-333S	33K	1/4W	CARBON
R608	QRD148J-473S	47K	1/4W	CARBON
R609	QRD141J-222S	2.2K	1/4W	CARBON
R610	QRD141J-103S	10K	1/4W	CARBON
R611	QRD141J-392S	3.9K	1/4W	CARBON
R612	QRD141J-152S	1.5K	1/4W	CARBON
R613	QRD141J-222S	2.2K	1/4W	CARBON
R614	QRD141J-392S	3.9K	1/4W	CARBON
R615	QRD141J-223S	22K	1/4W	CARBON
R616	QRD141J-101S	100	1/4W	CARBON
R617	QRD141J-471S	470	1/4W	CARBON
R618	QRD141J-473S	47K	1/4W	CARBON
R619	QRD141J-223S	22K	1/4W	CARBON
R620	QVZ3501-103	10K		VARIABLE
R621	QRD141J-223S	22K	1/4W	CARBON
R622	QRD141J-562S	5.6K	1/4W	CRABON
R623	QRD141J-102S	1K	1/4W	CARBON
R624	QRD141J-562S	5.6K	1/4W	CARBON
R625	QRD141J-223S	22K	1/4W	CARBON
R626	QRD141J-392S	3.9K	1/4W	CARBON
R627	QRD141J-122S	1.2K	1/4W	CARBON
R628	QRD141J-122S	1.2K	1/4W	CARBON
R629	QRD141J-473S	47K	1/4W	CARBON
R631	QRD141J-472S	4.7K	1/4W	CARBON
R632	QRD141J-223S	22K	1/4W	CARBON
R633	QRD141J-223S	22K	1/4W	CARBON
R634	QRD141J-103S	10K	1/4W	CARBON
R635	QRD141J-103S	10K	1/4W	ACRBON
R635	QRD141J-332S	3.3K	1/4W	CARBON
R636	QRD141J-222S	2.2K	1/4W	CARBON
R637	QRD141J-222S	2.2K	1/4W	CARBON
R638	QRD141J-222S	2.2K	1/4W	CARBON
R639	QRD141J-222S	2.2K	1/4W	CARBON
R640	QRD141J-104S	100K	1/4W	CARBON
R641	QRD141J-104S	100K	1/4W	CARBON
R645	QRD141J-470S	47	1/4W	CARBON
R646	QRD141J-470S	47	1/4W	CARBON
R647	QRD141J-104S	100K	1/4W	CARBON
R648	QRD141J-104S	100K	1/4W	CARBON
R649	QRD141J-104S	100K	1/4W	CARBON
R650	QRD141J-104S	100K	1/4W	CARBON
R651	QRD141J-100S	10	1/4W	CARBON
R652	QRD141J-100S	10	1/4W	CARBON
R653	QRD141J-473S	47K	1/4W	CARBON
R654	QRD141J-473S	47K	1/4W	CARBON
R655	QRD141J-392S	3.9K	1/4W	CARBON
R656	QRD141J-392S	3.9K	1/4W	CARBON
R657	See below		1/4W	CARBON
R658	See below		1/4W	CARBON
R659	QRD141J-103S	10K	1/4W	CARBON
R660	QRD141J-103S	10K	1/4W	CARBON
R661	QRD141J-221S	220	1/4W	CARBON
R662	QRD141J-223S	22K	1/4W	CARBON
R663	QRD141J-223S	22K	1/4W	CARBON
R664	QRD141J-223S	22K	1/4W	CARBON
R665	QRD141J-223S	22K	1/4W	CARBON
R666	QRD141J-222S	2.2K	1/4W	CARBON
R667	QRD141J-223S	22K	1/4W	CARBON
R668	QRD141J-102S	1K	1/4W	CARBON
R669	QRD141J-222S	2.2K	1/4W	CARBON
R670	QRD141J-104S	100K	1/4W	CARBON
R671	QRD141J-103S	10K	1/4W	CARBON
R672	QRD141J-561S	560	1/4W	CARBON
R674	QRD148J-103S	10K	1/4W	CARBON

Capacitors

ITEM	PART NUMBER	DESCRIPTION		
C601	QCF31HP-223Z	0.022UF	50V	CERAMIC
C605	QEB51HM-105	1UF	50V	L.L.C.E.
C606	QET61CM-476ZM	47UF	16V	ELECTRO
C607	QCF31HP-223Z	0.022UF	50V	CERAMIC
C608	QET51EM-106	10UF	25V	ELECTRO
C610	QCF31HP-223Z	0.022UF	50V	CERAMIC
C611	QCF31HP-223Z	0.022UF	50V	CERAMIC
C612	QET51CM-227	220UF	16V	ELECTRO
C615	QET61AM-107ZM	100UF	10V	ELECTRO
C616	QCF31HP-223Z	0.022UF	50V	CERAMIC
C617	QET61AM-227ZM	220UF	10V	ELECTRO
C620	QCS31HJ-101Z	100PF	50V	CERAMIC
C621	QCS31HJ-561Z	560PF	50V	CERAMIC
C622	QET61HM-476ZM	47UF	50V	ELECTRO
C623	QET61HM-105ZM	1UF	50V	ELECTRO
C625	QET61CM-476ZM	47UF	16V	ELECTRO
C626	QCF31HP-223Z	0.022UF	50V	CERAMIC
C627	QCF31HP-223Z	0.022UF	50V	CERAMIC
C633	QCS31HJ-101Z	100PF	50V	CERAMIC
C634	QCS31HJ-101Z	100PF	50V	CERAMIC
C635	QET61HM-475ZM	4.7UF	50V	ELECTRO
C636	QET61HM-475ZM	4.7UF	50V	ELECTRO
C637	QFM31HJ-683Z	0.068UF	50V	MYLAR
C638	QFM31HJ-683Z	0.068UF	50V	MYLAR
C639	QFM31HJ-183Z	0.018UF	50V	MYLAR
C640	QFM31HJ-183Z	0.018UF	50V	MYLAR
C641	QET61AM-107ZM	100UF	10V	ELECTRO
C642	QET61AM-107ZM	100UF	10V	ELECTRO
C643	QET61HM-474ZM	0.47UF	50V	ELECTRO
C644	QET61HM-474ZM	0.47UF	50V	ELECTRO
C645	QET61CM-476ZM	47UF	16V	ELECTRO
C646	QET51AM-227	220UF	10V	ELECTRO
C647	QCF31HP-223Z	0.022UF	50V	CERAMIC
C648	QET61EM-106ZM	10UF	25V	ELECTRO
C649	QET51CM-108	1000UF	16V	ELECTRO
C650	QET61AM-107ZM	100UF	10V	ELECTRO
C651	QET61AM-476ZM	47UF	10V	ELECTRO
C653	QCF21HP-223	0.022UF	50V	CRAMIC

Others

ITEM	PART NUMBER	DESCRIPTION
	E67764-004	WRAPPING TERMINAL
	EWT011-036	TERMINAL WIRE ASS'Y
	EWT602	EARTH WIRE
	E24224-101	CIRCUIT BOARD
	E33754-003	TIE BAND
P601	QMV5005-003	3P PLUG ASS'Y
P602	E04365-004	JAMPER SOCKET
P603	QMV5005-005	5P PLUG ASS'Y
P604	E04357-008A	SOCKET ASS'Y
P605	QMV5005-004	4P PLUG ASS'Y
P606	E04365-004	JAMPER SOCKET
P607	QMV5005-003	3P PLUG ASS'Y
SH601	SDT1000	

Specified Numbers in TXX-416 for Designated Areas

Item	Description	U.S.A. & Canada	Europe & Australia	West Germany	Europe (with LW)	U.K.	U.S. Military Market & other countries
R657	Resistor	QRD141J-241S	–	–	–	–	QRD141J-181S
R658	"	"	–	–	–	–	"

14-(6) TXX-417B jack P.C. board ass'y

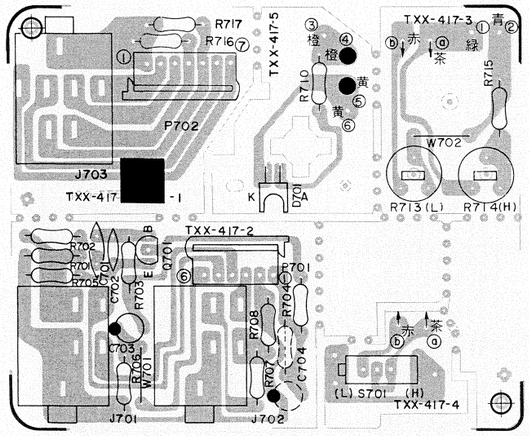


Fig. 46

Transistor

ITEM	PART NUMBER	DESCRIPTION	
			MAKER
Q701	2SC1775AV(E)	SILICON	HITACHI

Resistors

ITEM	PART NUMBER	DESCRIPTION		
R701	QRD141J-102S	1K	1/4W	CARBON
R702	QRD141J-102S	1K	1/4W	CARBON
R703	QRD141J-275S	270K	1/4W	CARBON
R704	QRD141J-103S	10K	1/4W	CARBON
R705	QRD141J-181S	180	1/4W	CARBON

Resistors

ITEM	PART NUMBER	DESCRIPTION		
R706	QRD141J-473S	47K	1/4W	CARBON
R707	QRD141J-393S	39K	1/4W	CARBON
R708	QRD141J-104S	100K	1/4W	CARBON
R710	QRD141J-391S	390	1/4W	CARBON
R713	QVP4A0B-222			VARIABLE
R714	QVP4A0B-222			VARIABLE
R715	QRD141J-102S	1K	1/4W	CARBON
R716	QRD141J-102S	1K	1/4W	CARBON
R717	QRD141J-102S	1K	1/4W	CARBON

Diode

ITEM	PART NUMBER	DESCRIPTION	
			MAKER
D701	LN55LF	L.E.D.	MATSUSHITA

Capacitors

ITEM	PART NUMBER	DESCRIPTION		
C701	QCF31HP-473Z	0.047UF	50V	CERAMIC
C702	QCS31HJ-101Z	100PF	50V	CERAMIC
C703	QET61HM-105Z	1UF	50V	ELECTRO

Others

ITEM	PART NUMBER	DESCRIPTION
	E43727-003	TAB
	E69828-003	CIRCUIT BOARD
J701	QMS6311-005	MIC JACK
J702	QMS6311-005	MIC JACK
P701	E04365-006B	CONNECTOR
P702	E04365-007B	7P PLUG ASS'Y
S701	QSP0029-001	PUSH SWITCH
J703	QMS6312-016	HEADPHONE JACK

14-(7) TXX-422B sensor P.C. board ass'y

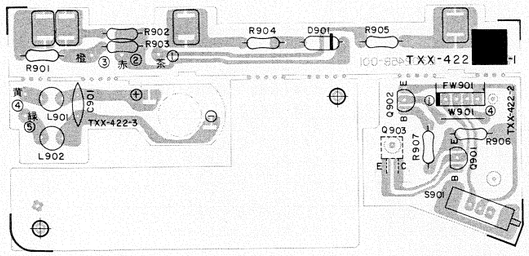


Fig. 47

Transistors

ITEM	PART NUMBER	DESCRIPTION	
			MAKER
Q901	2SC458(C)	SILICON	HITACHI
Q902	2SC458(C)	SILICON	HITACHI
Q903	PN150LF	SILICON	MATSUSHITA

Diode

ITEM	PART NUMBER	DESCRIPTION	
			MAKER
D901	1S2076-31	SILICON	HITACHI

Capacitor

ITEM	PART NUMBER	DESCRIPTION		
C901	QCF21HP-223	0.022UF	50V	CERAMIC

Coils

ITEM	PART NUMBER	DESCRIPTION
L901	EQL1001-200	F.INDUCTOR
L902	EQL1001-200	F.INDUCTOR

Resistors

ITEM	PART NUMBER	DESCRIPTION		
R901	QRD148J-223S	22K	1/4W	CERAMIC
R902	QRD148J-153S	15K	1/4W	CERAMIC
R903	QRD148J-222S	2.2K	1/4W	CERAMIC
R904	QRD148J-562S	5.6K	1/4W	CERAMIC
R905	QRD148J-153S	15K	1/4W	CERAMIC
R906	QRD148J-331S	330	1/4W	CERAMIC
R907	QRD148J-223S	22K	1/4W	CERAMIC

Others

ITEM	PART NUMBER	DESCRIPTION
	E69614-001	TOUCH PLATE
S802	QSP0029-001	PUSH SWITCH
S901	QSP0029-001	PUSH SWITCH

14-(8) END-004 AC fuse P.C. board ass'y (U.S.A. Only)

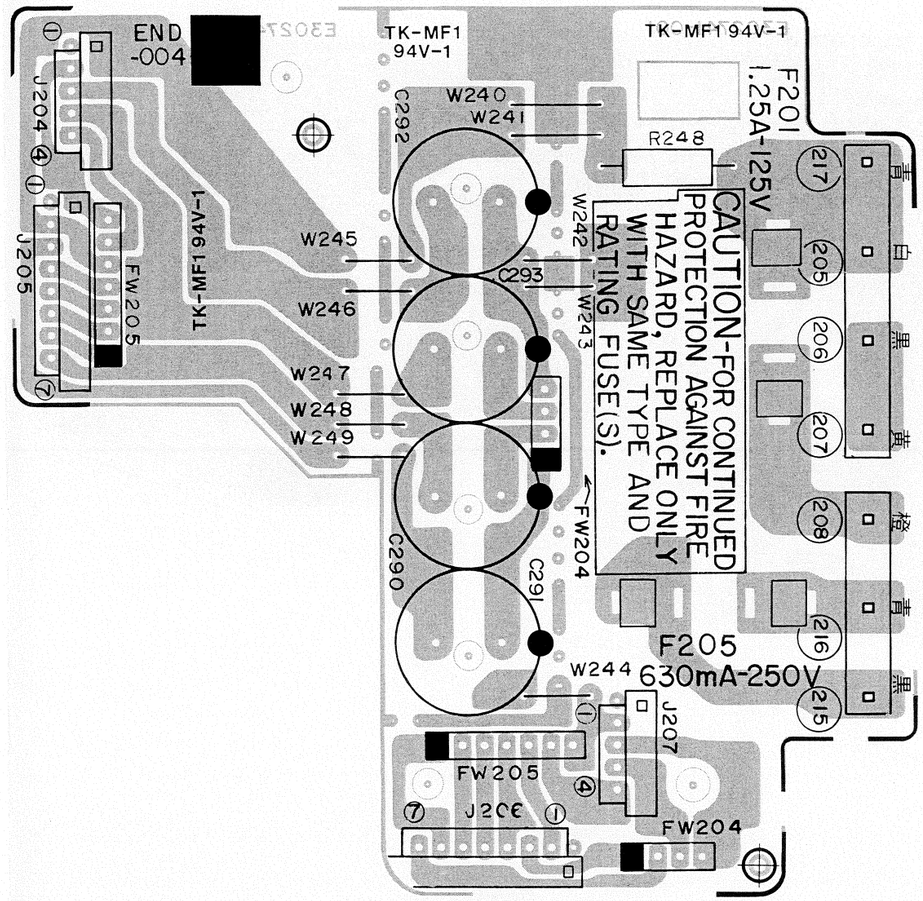


Fig. 48

Capacitors

ITEM	PART NUMBER	DESCRIPTION		
C290	QET51CM-228	2200 μF	16 V	ELECTRO
C291	QET51CM-228	2200 μF	16 V	ELECTRO
C292	QET51CM-228	2200 μF	16 V	ELECTRO
C923	QET51CM-228	2200 μF	16 V	ELECTRO

Resistor

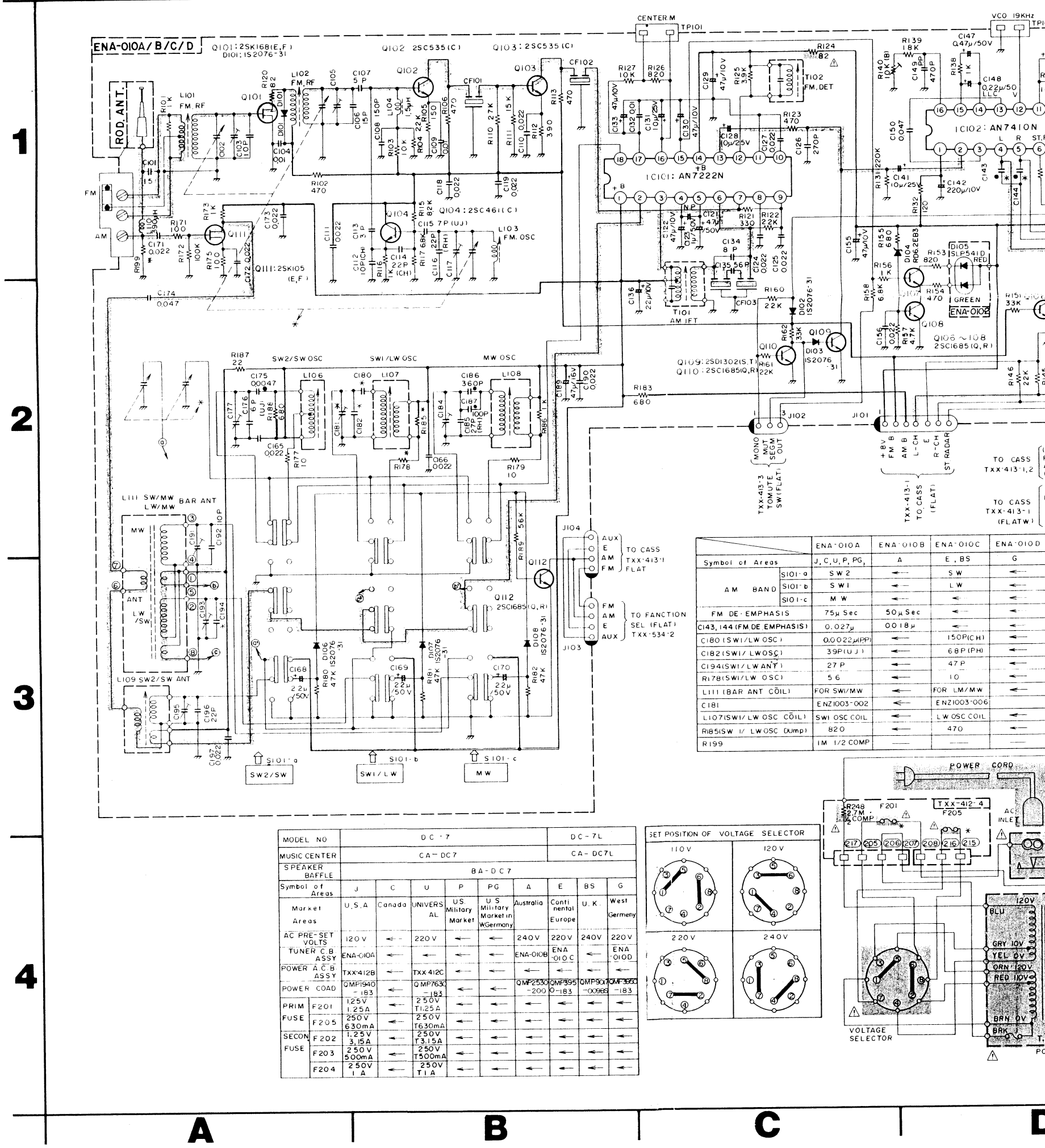
ITEM	PART NUMBER	DESCRIPTION		
R248	QRC128K-275E	2.7 M	1/4 W	CARBON

Others

ITEM	PART NUMBER	DESCRIPTION
J204	E04365-004	4P SOCKET ASS'Y
J205	E04365-007	F.W. SOCKET
J206	E04365-007	F.W. SOCKET
J207	E04365-004	4P SOCKET ASS'Y
	EMG7331-001	FUSE CLIP
	E67764-203	WRAPPING TERMINAL
	E67764-204	WRAPPING TERMINAL
	E302741-001	CIRCUIT BOARD

15. DC-7 Schematic Diagrams

15-(1) Tuner amplifier section



		ENA-010A	ENA-010B	ENA-010C	ENA-010D
Symbol of Areas		J, C, U, P, PG,	A	E, BS	G
AM BAND	S101-a	SW 2	←	SW	←
	S101-b	SW 1	←	LW	←
	S101-c	M W	←	←	←
FM DE-EMPHASIS		75μ Sec	50μ Sec	←	←
C143, 144 (FM DE EMPHASIS)		0.027μ	0.018μ	←	←
C180 (SWI/LW OSC)		0.0022μ(PP)	←	150P(CH)	←
C182 (SWI/LW OSC)		39P(UJ)	←	68P(PH)	←
C194 (SWI/LW ANT)		27 P	←	47 P	←
R178 (SWI/LW OSC)		56	←	10	←
L111 (BAR ANT COIL)		FOR SWI/MW	←	FOR LM/MW	←
C181		ENZ1003-002	←	ENZ1003-006	
L107 (SWI/LW OSC COIL)		SWI OSC COIL	←	LW OSC COIL	←
R185 (SW I/LW OSC Dump)		820	←	470	←
R199		1M 1/2 COMP	—	—	—

MODEL NO		DC-7							DC-7L
MUSIC CENTER		CA-DC7							CA-DC7L
SPEAKER BAFFLE		BA-DC7							
Symbol of Areas		J	C	U	P	PG	A	E	BS	G
Market Areas		U.S.A	Canada	UNIVERSAL	U.S. Military Market	U.S Military Market in WGermany	Australia	Continental Europe	U.K.	West Germeny
AC PRE-SET VOLTS		120V	←	220V	←	←	240V	220V	240V	220V
TUNER C.B. ASSY		ENA-010A	←	←	←	←	ENA-010B	ENA-010C	←	ENA-010D
POWER A.C.B. ASSY		TXX-412B	←	TXX-412C	←	←	←	←	←	←
POWER COAD		QMP1940-183	←	QMP7630-183	←	←	QMP2530-200	QMP3950-183	QMP9070-00985	QMP3960-183
PRIM FUSE	F201	125V 1.25A	←	250V T1.25A	←	←	←	←	←	←
	F205	250V 630mA	←	250V T630mA	←	←	←	←	←	←
SECON FUSE	F202	125V 3.15A	←	250V T3.15A	←	←	←	←	←	←
	F203	250V 500mA	←	250V T500mA	←	←	←	←	←	←
	F204	250V 1A	←	250V T1A	←	←	←	←	←	←

Voltage Values

IC101	1	2	3	4	5	6	7	8
AM	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
FM AUTO	4.9	5.6	5.7	5.6	0	5.7	5.7	0
	4.9	5.7	5.7	5.7	0	5.7	5.7	0

IC102	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
FM	0.6	0.6	0.6		0.3	7.0	7.0	7.0	7.0	6.8	0	7.4	1.0	7.4	0.8	2.0	1.5	0.6
	0.5	0.5	0.5	0.5	0	6.3	6.3	6.3	6.3	6.3	0	7.4	0.8	7.4	0.8	2.0	1.5	0.3
AM	5.3	5.3	5.3	0.9	1.6	7.5	7.5	7.5	7.5	7.1	0	8.0	0.7	8.0	0	0.1	0.1	5.3
	5.3	5.3	5.3	0.9	1.5	7.0	7.0	7.0	7.0	7.0	0	8.0	0.8	8.0	0	0.1	0.1	5.3

IC103	1	2	3	4	5	6	7	8	9	10	11	12	13
MONO	6.7	1.4	1.4	2.3	2.4	6.8	0	0.46	2.0	1.3	1.3	0.1	1.4
	6.7	1.0	1.3	2.3	2.4	6.8	0	0.4	2.0	1.2	1.2	0.1	1.4
ST	6.7	1.4	1.4	2.3	2.4	0.8	0	0.46	0.1	1.3	1.3	1.1	1.4
	6.7	1.0	1.3	2.3	2.4	0.8	0	0.4	0.1	1.2	1.2	1.0	1.
AM	6.7	1.4	1.4	2.3	2.4	0.2	0	0.46	2.0	1.3	1.3	0.2	1.4
	6.7	1.0	1.3	2.3	2.4	0	0	0.4	1.6	1.2	1.2	0.1	1.

	Q101			Q102			Q103			Q104			Q105			Q106			Q107			Q108			Q109			Q110			Q111		
	S	D	G	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	S	D	G
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4	0.6	0	0	0	0	2.0	0.7	0	0	0.7	0	0	0	0	0	0.5	0	3.4	0
	0	0	0	0	0	0	0	0	0	0	1.4	0.4	0	0	0	0	2.0	0.6	0	0	0.7	0	0	0.5	0	0	0	0	0	0.5	0	3.4	0
FM ST	0	2.8	0	0.7	6.1	1.4	1.8	5.9	2.5	2.8	8.1	3.5	0	0.1	0.6	0	0	0.6	0	4.8	0.7	0	0	0.7	0	0	0	0	0.1	0.6	0	0	0
	0	2.8	0	0.7	6.1	1.4	1.8	5.9	2.5	2.8	8.1	3.5	0	0.1	0.4	0	0	0.6	0	4.6	0.5	0	0	0.7	0	0	0	0	0.1	0.6	0	0	0
FM MONO	0	2.8	0	0.7	6.1	1.4	1.8	5.9	2.5	2.8	8.1	3.5	0	2.0	0	0	0	0.6	0	4.8	0.7	0	0	0.7	0	0	0	0	0	0	0	0	0
	0	2.8	0	0.7	6.1	1.4	1.8	5.9	2.5	2.8	8.1	3.5	0	2.0	0	0	0	0.3	0	5.8	0.5	0	0	0.7	0	0	0	0	0	0	0	0	0

	Q203			Q204			Q205			
	E	C	B	E	C	B	E	C	B	
POWER ON	19.3	8.4	18.7	18.2	8.4	18.7	7.5	18.1	18.2	5.
	19	8.0	19	18.0	8.0	19	7.5	18	18	
POWER OFF	20	0	21	20	0	20.5	0	20.5	0	
	20	0	21	20	0	20.5	0	20.5	0	

Notes:

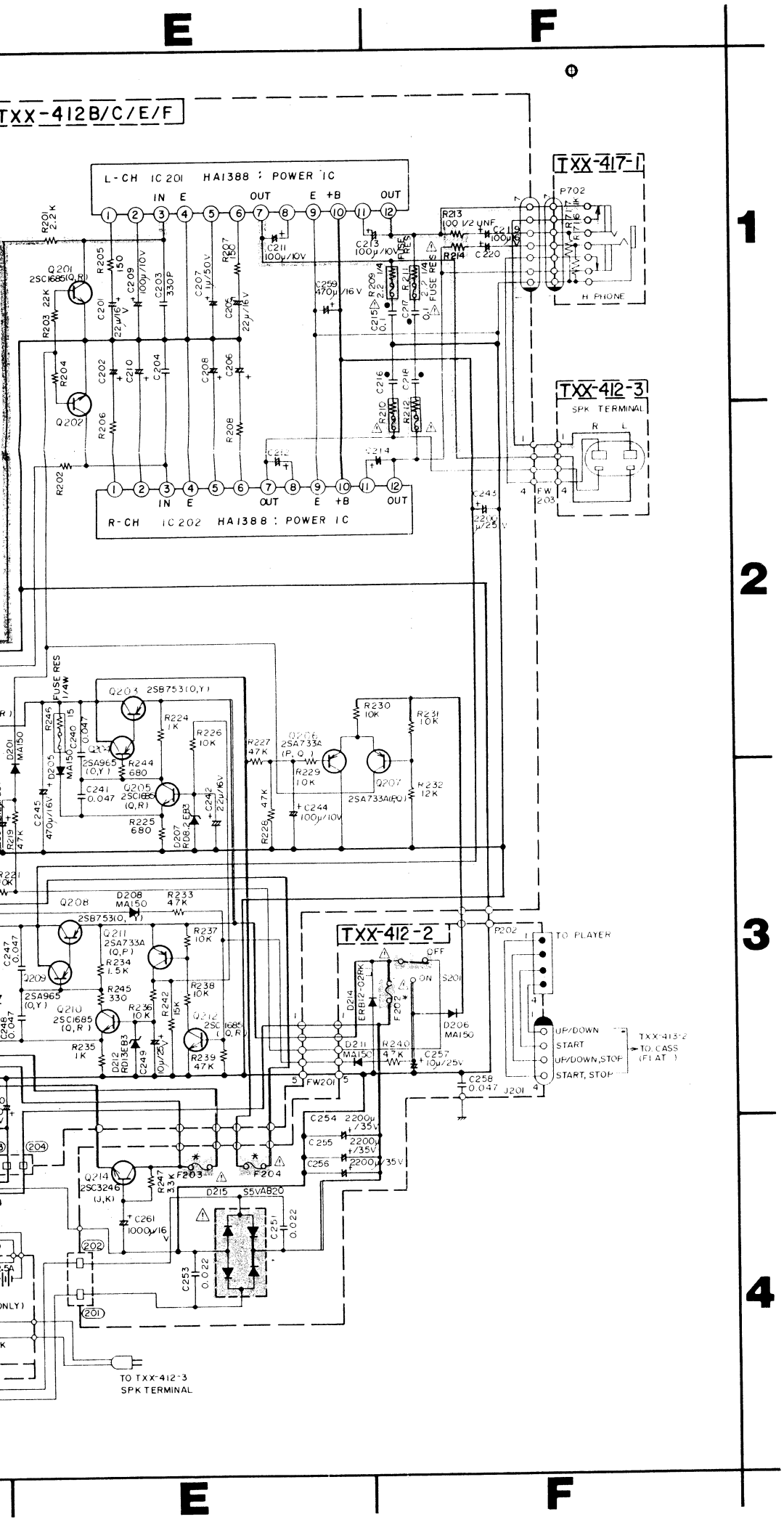
1. indicates pos
2. indicates sign
3. When replacing the area ( ) and t be sure to use the sure safety.

IC103	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	NOTE
MONO	6.7	1.4	1.4	2.3	2.4	6.8	0	0.46	2.0	1.3	1.3	0.1	1.4	1.3	1.4	0.2	
	6.7	1.0	1.3	2.3	2.4	6.8	0	0.4	2.0	1.2	1.2	0.1	1.2	1.2	1.2	0.2	
S T	6.7	1.4	1.4	2.3	2.4	0.8	0	0.46	0.1	1.3	1.3	1.1	1.4	1.3	1.4	0.2	ST reception
	6.7	1.0	1.3	2.3	2.4	0.8	0	0.4	0.1	1.2	1.2	1.0	1.2	1.2	1.2	0.2	
A M	6.7	1.4	1.4	2.3	2.4	0.2	0	0.46	2.0	1.3	1.3	0.2	1.4	1.3	1.4	0.2	
	6.7	1.0	1.3	2.3	2.4	0	0	0.4	1.6	1.2	1.2	0.1	1.2	1.2	1.2	0.2	

IC201 / 202	1	2	3	4	5	6	7	8	9	10	11	12
	1.0	4.5	0	0	1.4	1.0	6.7	12.9	0	13.3	13.0	6.8
	1.0	4.4	0	0	1.4	1.0	6.7	12.9	0	13.3	13.0	6.8

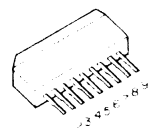
	Q 203			Q 204			Q 205			Q 206			Q 207			Q 208			Q 209			Q 210			Q 211			Q 212		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
POWER ON	19.3	8.4	18.7	18.2	8.4	18.7	7.5	18.1	18.2	5.0	0	4.4	5.0	0	10.0	19.4	13.3	18.8	18.2	13.3	19	13.2	17.9	12.6	19.4	19.3	18.7	0	0	0.7
	19	8.0	19	18.0	8.0	19	7.5	18	18	5.0	0	4.2	5.0	0	10.0	19	13	19	18	13	18.8	12.5	17.5	13	19	19	18	0	0	0.7
POWER OFF	20	0	21	20	0	20.5	0	20.5	0	0	0	0.6	0.8	1.4	0.6	20	0	20.5	20	0	20.5	0	20.5	0	20.5	0	20.5	0	20.5	0
	20	0	21	20	0	20.5	0	20.5	0	0	0	0.6	0.7	1.4	0.6	20	0	20.5	20	0	20.5	0	20	0	20	0	20	0	20	0

	Q 213			Q 214		
	E	C	B	E	C	B
PHONO ON	0	0	0.6	13.0	13.4	12.3
	0	0	0.6	13.0	13.4	12.3
PHONO OFF	0	7.0	0	13.0	13.4	12.3
	0	7.0	0	13.0	13.4	12.3

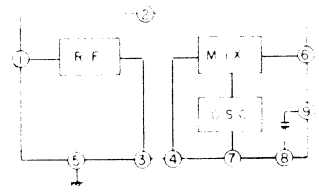


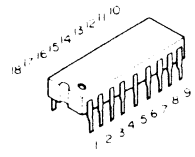
Notes:

1. indicates positive B (+) power supply.
2. indicates signal path.
3. When replacing the parts in the darkened area ( ) and those marked with ' , be sure to use the designated parts to ensure safety.

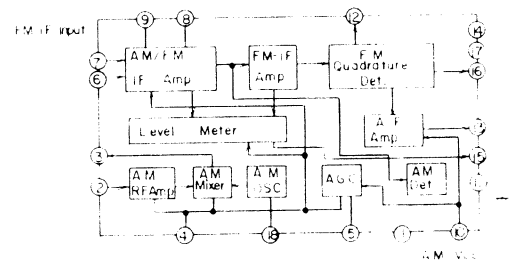


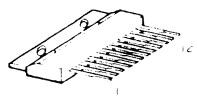
IC 101 TA7358P



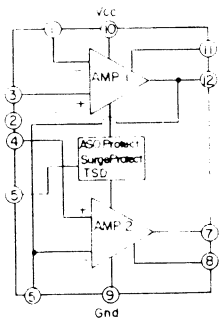


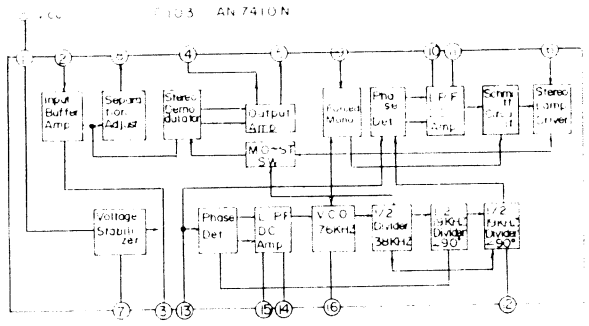
IC 102 AN 7222N





IC 201, 202 HA 1388





IC 103 AN 7410N

IC 201 / 202	1	2	3	4	5	6	7	8	9	10	11	12
	1.0 1.0	4.5 4.4	0 0	0 0	1.4 1.4	1.0 1.0	6.7 6.7	12.9 12.9	0 0	13.3 13.3	13.0 13.0	6.8 6.8

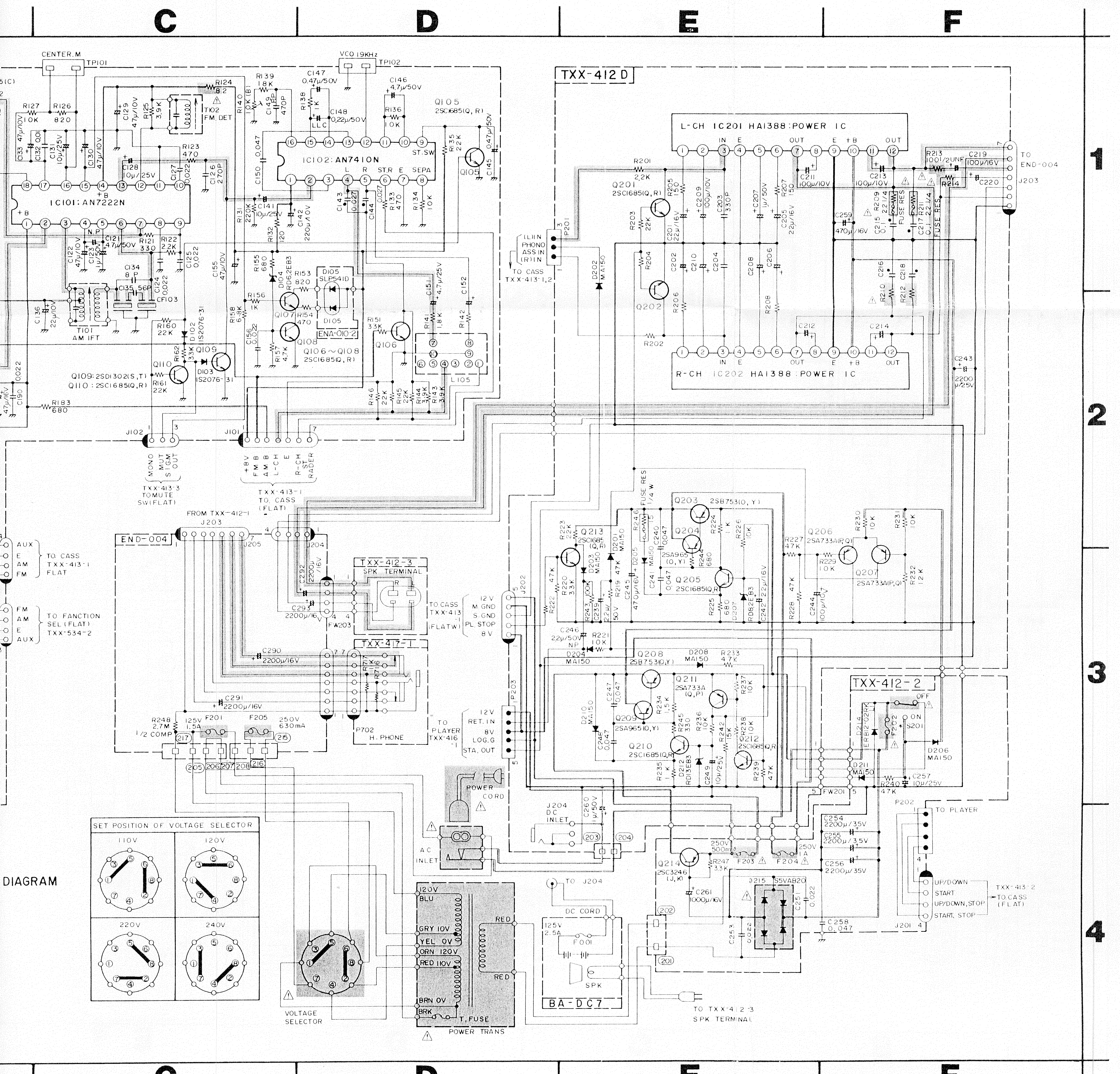
	Q 208			Q 209			Q 210			Q 211			Q 212		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
	4	13.3	18.8	18.2	13.3	19	13.2	17.9	12.6	19.4	19.3	18.7	0	0	0.7
	9	13	19	18	13	18.8	12.5	17.5	13	19	19	18	0	0	0.7
	0	0	20.5	20	0	20.5	0	20.5	0	20.5	0	20.5	0	20.5	0
	0	0	20.5	20	0	20.5	0	20	0	20	0	20	0	20	0

	Q 213			Q 214		
	E	C	B	E	C	B
PHONO ON	0 0	0 0	0.6 0.6	13.0 13.0	13.4 13.4	12.3 12.3
PHONO OFF	0 (	7.0 7.0	0 0	13.0 13.0	13.4 13.4	12.3 12.3

DC-7
FOR U,S,A ONLY SCHEMATIC DIAGRAM

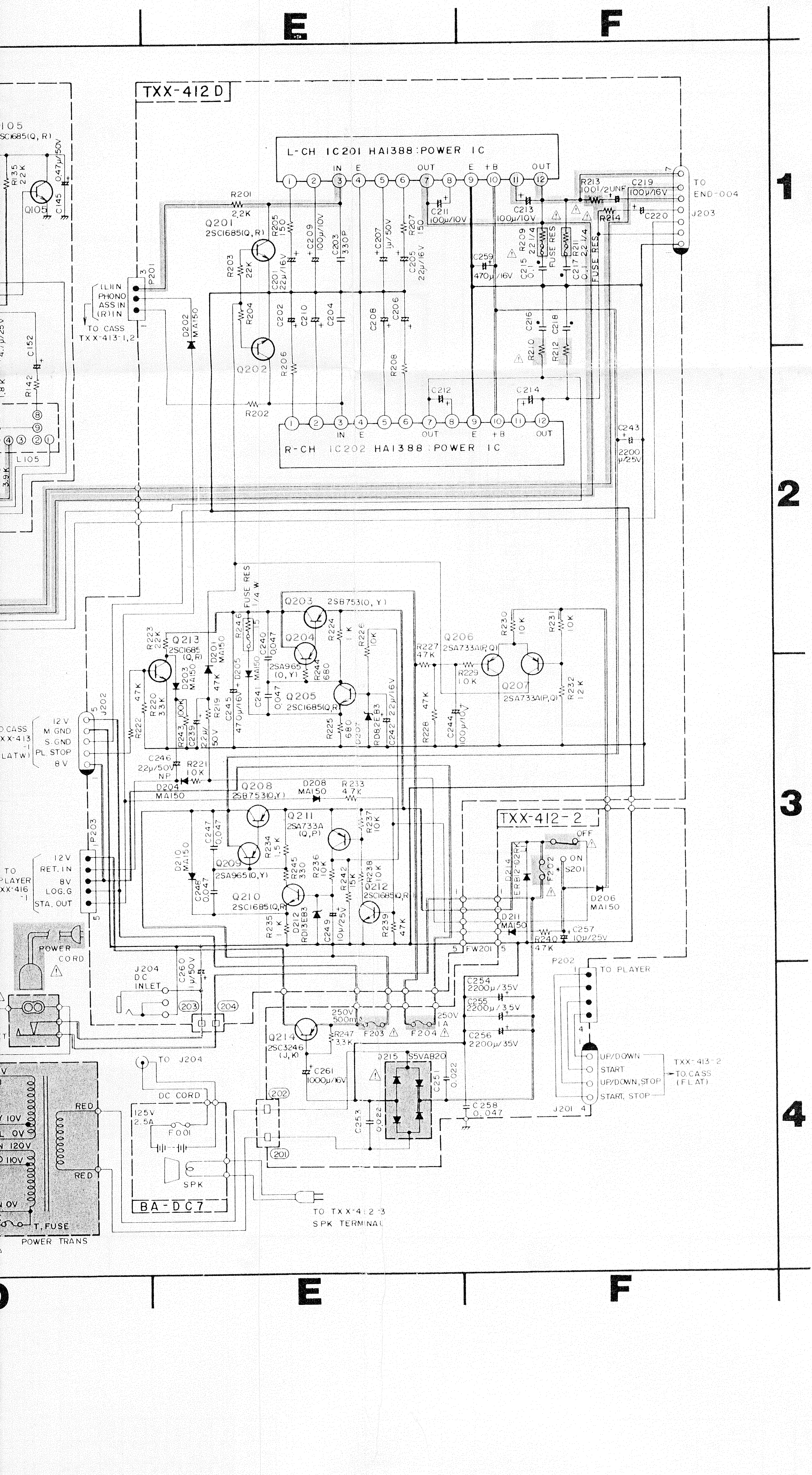
Notes:

1. ——— indicates positive B (+) power supply.
2. ▒▒▒ indicates signal path.
3. When replacing the parts in the darkened area (▒▒▒) and those marked with ⚠, be sure to use the designated parts to ensure safety.



C
D
E
F
1
2
3
4
CENTER.M
TP101
VCO 19KHz
TP102
IC101: AN7222N
IC102: AN7410N
T101 AM IFT
T102 FM. DET
Q105 2SC1685(Q, R)
Q106~Q108 2SC1685(Q, R)
Q109: 2SD1302(S, T)
Q110 : 2SC1685(Q, R)
ENA-010-2
L105
J102
J101
MONO MUT SIGM OUT
TXX-413-3 TOMUTE SW(FLAT)
+8V FM B AM B L-CH E R-CH ST RADER
TXX-413-1 TO. CASS (FLAT)
TXX-412 D
L-CH IC201 HA1388: POWER IC
R-CH IC202 HA1388: POWER IC
TO END-004
J203
P201
(L)IN PHONO ASS IN (R)IN
TO CASS TXX-413-1,2
END-004
FROM TXX-412-1
J205
J204
AUX E AM FM
TO. CASS TXX-413-1 FLAT
FM AM E AUX
TO FANCTION SEL (FLAT) TXX-534-2
TXX-412-3 SPK TERMINAL
TXX-417-1
P702 H. PHONE
TO CASS TXX-413-1 (FLATW)
12V M.GND S.GND PL.STOP 8V
J202
P203
TO PLAYER TXX-416-1
12V RET. IN 8V LOG.G STA. OUT
TXX-412-2
S201
OFF ON
FW203
FW201
P202
TO PLAYER
J201
UP/DOWN START UP/DOWN, STOP START, STOP
TXX-413-2 TO.CASS (FLAT)
POWER CORD
AC INLET
J204 DC INLET
TO J204
DC CORD
F001
SPK
BA-DC7
TO TXX-412-3 SPK TERMINAL
D215 S5VAB20
SET POSITION OF VOLTAGE SELECTOR
110V
120V
220V
240V
VOLTAGE SELECTOR
120V BLU
GRY 10V
YEL 0V
ORN 120V
RED 110V
BRN 0V
BRK
T. FUSE
RED
POWER TRANS

DIAGRAM


E
F
1
2
3
4
TXX-412 D
L-CH IC201 HA1388 :POWER IC
R-CH IC202 HA1388 :POWER IC
TO END-004
J203
TO CASS TXX-413-1,2
TXX-412-2
TO PLAYER
TXX-413-2 TO CASS (FLAT)
POWER CORD
J204 DC INLET
DC CORD
BA-DC7
POWER TRANS
TO TXX-412-3 SPK TERMINAL

15-(2) Cassette section

Voltage Values

IC301	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHONO	0	0	1.3	0	0	0	1.8 1.3	0	0	0.1	0.1 0.1	7.6 7.4	0.78 0.78	0	7.1 6.7	0
TAPE	2.0 1.6	0	0	0	0	0	1.8 1.3	0	0	0.1 0.1	0.2 0	7.6 7.4	7.1 6.7	0	0.8 0.7	0
TUNER	0	0	0	0	0	0	0.5 0	0	0	8 7.7	0.1	0.9	7.1 6.7	0	7.1 6.7	0
AUX	0	0	0	0	0	0	1.8 1.3	0	0	0.1	0.1	7.6 7.4	7.2 6.8	0	7.1 6.7	0
AUX REC	5.6 5.3	0	0	0	0	0	1.8 1.3	0	0	0.1 0.1	0.1 0.1	7.6 7.4	7.1 6.7	0	7.1 6.7	0

IC302	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHONO	0.1	8	8	8	8	0	0	8 7.9	8 7.9	8 7.9	8 7.9	8 7.9	0.1 0.1	8 7.9
TAPE	0.1	8	8	8	8	0	0	8 7.9	8 7.9	8 7.9	8 7.9	8 7.9	0.1 0.1	8 7.7
A M	8	8	8	8	8	0	0	8 7.9	0	8 7.9	0	8 7.7	8 7.7	8 8
F M	8	8	8	8	8	0	0	0	8 7.9	0	8 7.9	8 7.9	8 7.9	8 7.9
AUX	0.1	8	8	8	8	0	0	8 7.9	8 7.9	8 7.9	8 7.9	8 7.9	0.1 0.1	8 7.9

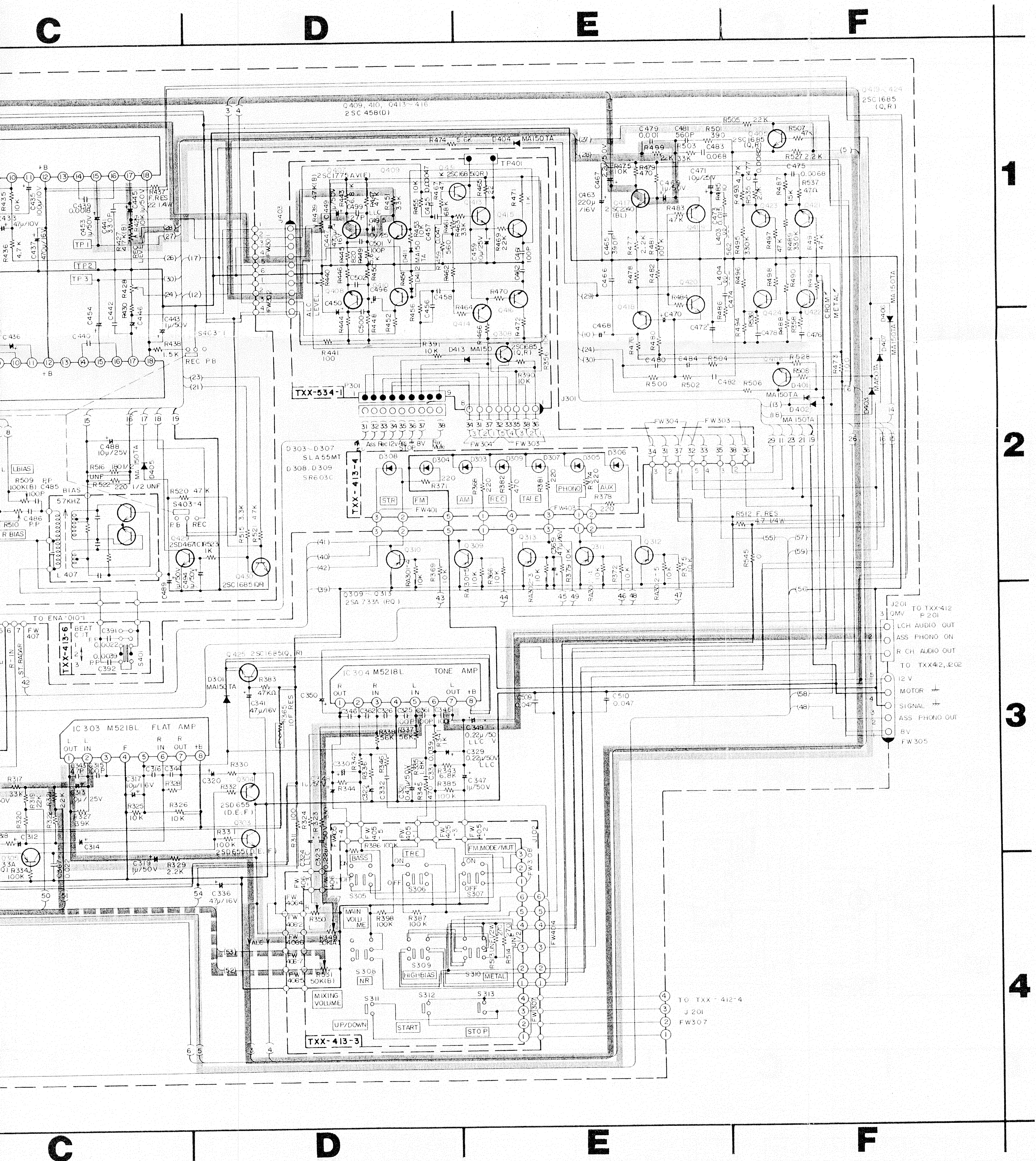
IC305	1	2	3	4	5	6	7	8	9	10	1
PHONO	0.78 0.78	7.6 7.4	7.1 6.6	3.7 1.5	3.6 1.5	3.7 1.5	3.7 1.5	7.4 7.4	3.7 3.7	0.1 0.1	0.
TAPE	7.1 6.6	7.6 7.4	7.1 6.6	3.7 1.5	3.6 1.5	3.7 1.5	3.7 1.5	7.4 7.4	3.7 3.7	0.1 0.1	0.
TUNER	7.1 6.6	0.9 0.9	7.1 6.6	3.7 1.5	3.6 1.5	3.7 1.5	3.7 1.5	7.4 7.4	3.7 3.7	0.1 0.1	0.
AUX	7.1 6.6	7.6 7.4	0.8 0.8	3.7 1.5	3.6 1.5	3.7 1.5	3.7 1.5	7.4 7.4	3.7 3.7	0.1 0.1	0

IC303	1	2	3	4	5	6	7	8
	3.7	3.7	3.7 3.6	0	3.7 3.6	3.7	3.7	7.4

IC304	1	2	3	4	5	6	7	8
	3.7	3.7	3.7 2.9	0	3.7 2.9	3.7	3.7	6.2

IC401	1	2	3	4	5	6	7	8
	1.3 0.6	0.8 0.6	3.2	7.1	0	2.6	0.8 0.6	1.3 0.6

IC403, 404		1	2	3	4	5	6	7	8
TAPE PLAY	NR OFF	4.1 3.3	4.1 3.3	4.0 4.0	4.1 3.3	4.1 4.1	4.2 4.1	4.1 4.0	4.1 4.0
	NR ON	4.1 3.3	4.1 3.3	4.1 4.1	4.1 3.3	4.1 4.1	4.2 4.2	4.1 4.0	4.2 4.2
REC	NR OFF	4.1 3.3	4.1 3.3	4.0 4.0	4.1 3.3	4.1 4.1	4.2 4.2	4.1 4.0	4.1 4.0
	NR ON	4.1 3.3	4.1 3.3	4.1 4.1	4.1 3.3	4.1 4.1	4.2 4.2	4.1 4.0	4.2 4.2



Notes:

1. ——— indicates positive B (+)
2. The signal pathes are indicat
   : TAPE PLAY
   : PHONO
   : REC
   : MIC
3. When replacing the parts in t
   and those marked with ⚠
   nated parts to ensure safety.
4. This is the standard circuit
   contents are subject to chang

	Q301 E	Q301 C	Q301 B	Q302 E	Q302 C	Q302 B	Q308 E	Q308 C	Q308 B
PHONO	0	0	0.6 / 0.6	0	0	0.6 / 0.6	5.9 / 5.8	8	6.4 / 6.0
TAPE	0	0	0.6 / 0.6	0	6.0 / 5.8	0.2 / 0.14	0.2 / 0.1	8	0
TUNER	0	0	0.6 / 0.6	0	0	0.6 / 0.6	5.9 / 5.8	8	6.4 / 6.0
AUX	0	0	0.6 / 0.6	0	0	0.6 / 0.6	5.9 / 5.8	8	6.4 / 6.0
AUX REC	0	0	0.7 / 0.7	0	6.5 / 6.3	0	0.1 / 0.1	8	0

	Q309 E	Q309 C	Q309 B	Q310 E	Q310 C	Q310 B	Q311 E	Q311 C	Q311 B	Q312 E	Q312 C	Q312 B	Q313 E	Q313 C	Q313 B
PHONO	8.3 / 8	0 / 0	8.3 / 8.3	8.3 / 8.3	0 / 0	8.3 / 8.3	8.3 / 8.3	8.2 / 8.2	7.9 / 7.9	8.3 / 8.3	1.6 / 1.6	7.9 / 7.9	8.3 / 8.3	0.7 / 0.7	7.9 / 7.9
TAPE	8.3 / 8.3	0 / 0	8.3 / 8.3	8.3 / 8.3	0 / 0	8.3 / 8.3	8.3 / 8.3	0 / 0	7.9 / 7.9	8.3 / 8.3	1.6 / 1.6	7.9 / 7.9	8.3 / 8.3	8.2 / 8.2	7.9 / 7.9
F M	8.3 / 8.3	0 / 0	8.3 / 8.3	8.3 / 8.3	8.2 / 8.2	7.6 / 7.6	8.3 / 8.3	0 / 0	7.9 / 7.9	8.3 / 8.3	1.6 / 1.6	7.9 / 7.9	8.3 / 8.3	0.7 / 0.7	7.9 / 7.9
A M	8.3 / 8.3	8.1 / 8.1	7.6 / 7.6	8.3 / 8.3	0 / 0	8.3 / 8.3	8.3 / 8.3	0 / 0	7.9 / 7.9	8.3 / 8.3	1.6 / 1.6	7.9 / 7.9	8.3 / 8.3	0.7 / 0.7	7.9 / 7.9
AUX	8.3 / 8.3	0 / 0	8.3 / 8.3	8.3 / 8.3	0 / 0	8.3 / 8.3	8.3 / 8.3	0 / 0	7.9 / 7.9	8.3 / 8.3	8.2 / 8.2	7.6 / 7.6	0.3 / 0.3	0.7 / 0.7	7.9 / 7.9

	Q429 E	Q429 C	Q429 B	Q430 E	Q430 C	Q430 B	Q403,404 E	Q403,404 C	Q403,404 B	Q405,406 E	Q405,406 C	Q405,406 B	Q409 E	Q409 C	Q409 B	NOTE
AUX	0 / 0	7.6 / 7.5	0 / 0	0 / 0	0 / 0	0.6 / 0.6	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	
REC	0 / 0	0 / 0	0.7 / 0.7	0 / 0	3.6 / 3.6	0.1 / 0.1	0 / 0	0 / 0	0.6 / 0.6	0 / 0	0 / 0	0.6 / 0.6	0 / 0	0 / 0	0.6 / 0.6	
REC PAUSE	0 / 0	7.8 / 7.8	0 / 0	0 / 0	0 / 0	0.7 / 0.7	0 / 0	0 / 0	0.6 / 0.6	0 / 0	0 / 0	0.6 / 0.6	0 / 0	0 / 0	0.4 / 0.3	

0	11	12	13	14
8 / 7.9	8 / 7.9	8 / 7.9	0.1 / 0.1	8 / 7.9
7.9	8 / 7.9	8 / 7.9	0.1	8 / 7.7
7.9	0	8 / 7.7	8 / 7.7	8 / 8
0	8 / 7.9	8 / 7.9	8 / 7.9	8 / 7.9
7.9	8 / 7.9	8 / 7.9	0.1 / 0.1	8 / 7.9

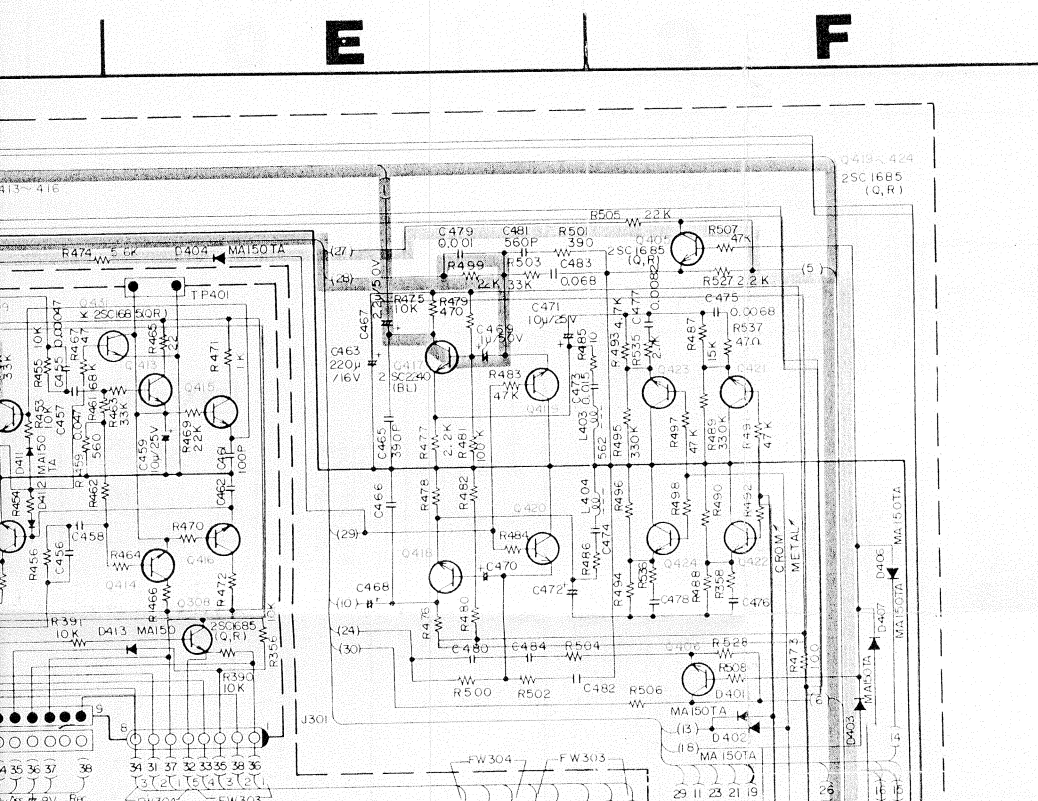
IC305	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
PHONO	0.78 / 0.78	7.6 / 7.4	7.1 / 6.6	3.7 / 1.5	3.6 / 1.5	3.7 / 1.5	3.7 / 1.5	7.4 / 7.4	3.7 / 3.7	0.1 / 0.1	0.1 / 0.1	0	0	3.7 / 1.5	3.7 / 3.7	7.4 / 7.4	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	0	7.1 / 6.7
TAPE	7.1 / 6.6	7.6 / 7.4	7.1 / 6.6	3.7 / 1.5	3.6 / 1.5	3.7 / 1.5	3.7 / 1.5	7.4 / 7.4	3.7 / 3.7	0.1 / 0.1	0.1 / 0.1	0	0	3.7 / 1.5	3.7 / 3.7	7.4 / 7.4	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	0	0.8 / 0.8
TUNER	7.1 / 6.6	0.9 / 0.9	7.1 / 6.6	3.7 / 1.5	3.6 / 1.5	3.7 / 1.5	3.7 / 1.5	7.4 / 7.4	3.7 / 3.7	0.1 / 0.1	0.1 / 0.1	0	0	3.7 / 1.5	3.7 / 3.7	7.4 / 7.4	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	0	7.1 / 6.7
AUX	7.1 / 6.6	7.6 / 7.4	0.8 / 0.8	3.7 / 1.5	3.6 / 1.5	3.7 / 1.5	3.7 / 1.5	7.4 / 7.4	3.7 / 3.7	0.1 / 0.1	0.1 / 0.1	0	0	3.7 / 1.5	3.7 / 3.7	7.4 / 7.4	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	0	7.1 / 6.7

IC801	1	2	3	4	5	6	7	8	9	NOTE
TAPE PLY	2.0 / 0.6	0	2.0 / 2.0	0	0	13 / 13	13 / 13	3.1 / 2.9	8	
M. SCAN	2.0 / 0.6	7.9 / 7.9	2.0 / 2.0	7.5 / 7.5	0	13 / 13	13 / 13	1.9 / 1.8	8	TAPE RUN
STOP	2.0 / 0.6	0	2.0 / 2.0	0	0	0	0	3.1 / 2.9	8	

5	6	7	8
0	2.6	0.8 / 0.6	1.3 / 0.6

IC403, 404		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
TAPE PLAY	NR OFF	4.1 / 3.3	4.1 / 3.3	4.0 / 4.0	4.1 / 3.3	4.1 / 4.1	4.2 / 4.1	4.1 / 4.0	4.1 / 4.0	0	1.8 / 1.7	4.1 / 3.9	7.7 / 7.7	3.3 / 3.3	4.1 / 4.1	4.2 / 4.2	4.2 / 4.2	4.1 / 3.4	2.8 / 2.8
	NR ON	4.1 / 3.3	4.1 / 3.3	4.1 / 4.1	4.1 / 3.3	4.1 / 4.1	4.2 / 4.2	4.1 / 4.0	4.2 / 4.2	0	3.4 / 3.3	4.2 / 3.9	7.8 / 7.8	3.3 / 3.3	4.2 / 4.2	4.2 / 4.2	4.2 / 4.2	4.1 / 3.4	2.8 / 2.8
REC	NR OFF	4.1 / 3.3	4.1 / 3.3	4.0 / 4.0	4.1 / 3.3	4.1 / 4.1	4.2 / 4.2	4.1 / 4.0	4.1 / 4.0	0	1.8 / 1.7	4.1 / 3.9	7.7 / 7.7	3.3 / 3.3	4.1 / 4.1	4.2 / 4.2	4.2 / 4.2	4.1 / 3.4	0.6 / 0.6
	NR ON	4.1 / 3.3	4.1 / 3.3	4.1 / 4.1	4.1 / 3.3	4.1 / 4.1	4.2 / 4.2	4.1 / 4.0	4.2 / 4.2	0	3.4 / 3.3	4.2 / 3.9	7.8 / 7.8	3.3 / 3.3	4.2 / 4.2	4.2 / 4.2	4.2 / 4.2	4.2 / 3.4	0.6 / 0.6

	Q802 E	Q802 C	Q802 B	Q803 E	Q803 C	Q803 B	Q804 E	Q804 C	Q804 B	Q851 E	Q851 C	Q851 B	NOTE
TAPEPLY	0	0	0	0	0.15	0.4 / 0.1	0	3.1	0	0.34 / 0.34	1.0 / 1.0	0.9 / 0.9	
M SCAN	0	0	0.6	0	0	0.4 / 0.1	0	1.8 / 1.7	0.6 / 0.5	0.34 / 0.34	3.1 / 2.4	0.9 / 0.9	TAPE RUN
STOP	0	0	0.6	0	0	0.4 / 0.1	0	3.1	0	0.4 / 0.4	1.3 / 1.3	1.0	



Notes:

1. ——— indicates positive B (+) power supply.
2. The signal pathes are indicated as follows:
   - : TAPE PLAY
   - : PHONO
   - : REC
   - : MIC
3. When replacing the parts in the darkened area ( ) and those marked with ⚠, be sure to use the designated parts to ensure safety.
4. This is the standard circuit diagram. The design and contents are subject to change without notice.

	Q301			Q302			Q308		
	E	C	B	E	C	B	E	C	B
PHONO	0	0	0.6	0	0	0.6	5.9	6.4	
TAPE	0	0	0.6	6.0	6.2	5.8	0.2	0.1	6.0
TUNER	0	0	0.6	0	0	0.6	5.9	6.4	
AUX	0	0	0.6	0	0	0.6	5.9	6.4	
AUX REC	0	0	0.7	6.5	6.3	0.6	0.1	0.1	

	Q311			Q312			Q313		
	E	C	B	E	C	B	E	C	B
PHONO	8.3	8.2	7.9	8.3	1.6	7.9	8.3	0.7	7.9
TAPE	8.3	0	7.9	8.3	1.6	7.9	8.3	8.2	7.9
FM	8.3	0	7.9	8.3	1.6	7.9	8.3	8.2	7.9
AM	8.3	0	7.9	8.3	1.6	7.9	8.3	0.7	7.9
AUX	8.3	0	7.9	8.3	1.6	7.9	8.3	0.7	7.9

	Q309			Q310			Q305			Q303, 304			Q425			Q417, 418		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PHONO	8.3	0	8.3	8.3	0	8.3	0	0	0	0	0	0	6.2	7.4	6.8	0.8	4.5	1.4
TAPE	8.3	0	8.3	8.3	0	8.3	0.1	0	0	0	0	0	6.2	7.4	5.8	0.8	4.4	1.3
FM	8.3	0	8.3	8.3	0	8.3	0.1	0	0	0	0	0						
AM	8.3	8.1	7.6	8.3	0	8.3	0.1	0	0	0	0	0						
AUX	8.3	0	8.3	8.3	0	8.3	0	0	0	0	0	0						

	Q407, 408			Q413, 414			Q415, 416			Q417, 418		
	E	C	B	E	C	B	E	C	B	E	C	B
PHONO	0.24	5.9	0.83	0	7.9	0	0.7	7.9	0			
TAPE	0.24	5.7	0.69	0	7.9	0	0.7	7.8	0			

	Q429			Q430			Q403, 404			Q405, 406			Q409			NOTE
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	
AUX	0	7.6	0	0	0	0.6	0	0	0.6	0	0	0.6	0	0	0	
	0	7.5	0	0	0	0.6	0	0	0.6	0	0	0.6	0	0	0	
REC	0	0	0.7	0	3.6	0.1	0	0	0.6	0	0	0.6	0	0	0.6	
	0	0	0.7	0	3.6	0.1	0	0	0.6	0	0	0.6	0	0	0.6	
REC PAUSE	0	7.8	0	0	0	0.7	0	0	0.6	0	0	0.6	0	0	0.4	
	0	7.8	0	0	0	0.7	0	0	0.6	0	0	0.6	0	0	0.3	

	Q401, 402			Q419, 420			Q421, 422			Q423, 424			NOTE
	E	C	B	E	C	B	E	C	B	E	C	B	
METAL	0	0	0.6	0	0	0	0	0	0	0	0	0.6	
	0	0	0.6	0	0	0	0	0	0	0	0	0.6	
CrO2	0	0	0.6	0	0	0	0	0	0	0	0	0	
NORMAL	0	0	0	0	0	0	0	0	0	0	0	0	
REC MUTE	0	0	0	0	0	0.6	0	0	0.6	0	0	0	NORMAL

	2	13	14	15	16	17	18	19	20	21	22
		0	3.7	3.7	7.4	3.7	3.7	3.7	3.7	0	7.1
			1.5	3.7	7.4	1.5	1.5	1.5	1.5		6.7
		0	3.7	3.7	7.4	3.7	3.7	3.7	3.7	0	0.8
			1.5	3.7	7.4	1.5	1.5	1.5	1.5		0.8
		0	3.7	3.7	7.4	3.7	3.7	3.7	3.7	0	7.1
			1.5	3.7	7.4	1.5	1.5	1.5	1.5		6.7
		0	3.7	3.7	7.4	3.7	3.7	3.7	3.7	0	7.1
			1.5	3.7	7.4	1.5	1.5	1.5	1.5		6.7

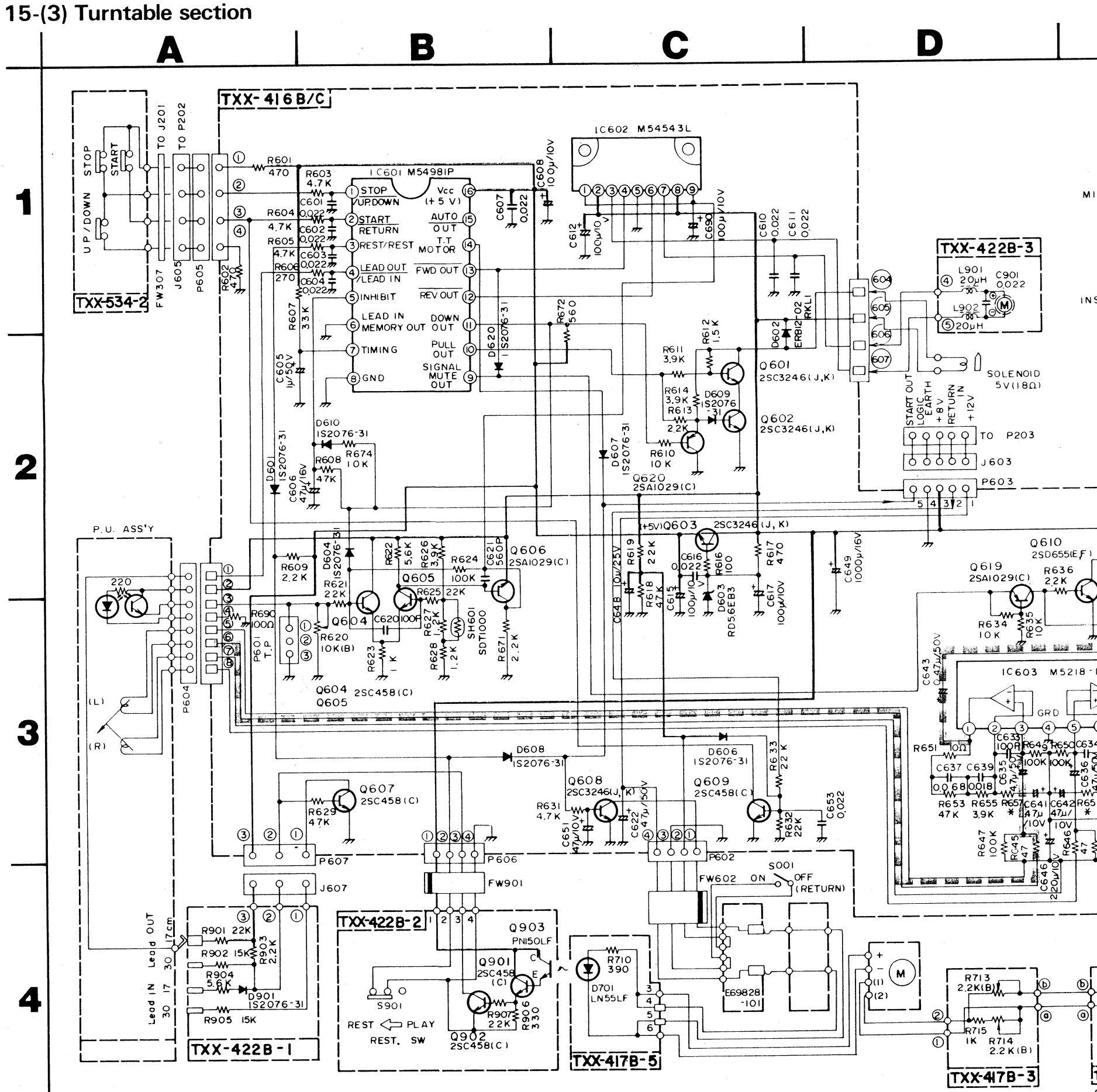
IC801	1	2	3	4	5	6	7	8	9	NOTE
TAPE PLY	2.0	0	2.0	0	0	13	13	3.1	8	
	0.6		2.0			13	13	2.9		
M SCAN	2.0	7.9	2.0	7.5	0	13	13	1.9	8	TAPE RUN
	0.6	7.9	2.0	7.5		13	13	1.8		
STOP	2.0	0	2.0	0	0	0	0	3.1	8	
	0.6		2.0					2.9		

	10	11	12	13	14	15	16	17	18
		4.1	7.7	3.3	4.1	4.2	4.2	4.1	2.8
	.7	3.9	7.7	3.3	4.1	4.2	4.2	3.4	2.8
		4.2	7.8	3.3	4.2	4.2	4.2	4.1	2.8
	.3	3.9	7.8	3.3	4.2	4.2	4.2	3.4	2.8
		4.1	7.7	3.3	4.1	4.2	4.2	4.1	0.6
	.7	3.9	7.7	3.3	4.1	4.2	4.2	3.4	0.6
		4.2	7.8	3.3	4.2	4.2	4.2	4.2	0.6
	.3	3.9	7.8	3.3	4.2	4.2	4.2	3.4	0.6

	Q802			Q803			Q804			Q851			NOTE
	E	C	B	E	C	B	E	C	B	E	C	B	
TAPE PLY	0	0	0	0	0.15	0.4	0	3.1	0	0.34	1.0	0.9	
						0.1			0	0.34	1.0	0.9	
M SCAN	0	0	0.6	0	0	0.4	0	1.8	0.6	0.34	3.1	0.9	TAPE RUN
						0.1		1.7	0.5	0.34	2.4	0.9	
STOP	0	0	0.6	0	0	0.4	0	3.1	0	0.4	1.3	1.0	
						0.1				0.4	1.3		

DC-7/DC-7L
No. 2654

15-(3) Turntable section



Voltage Values

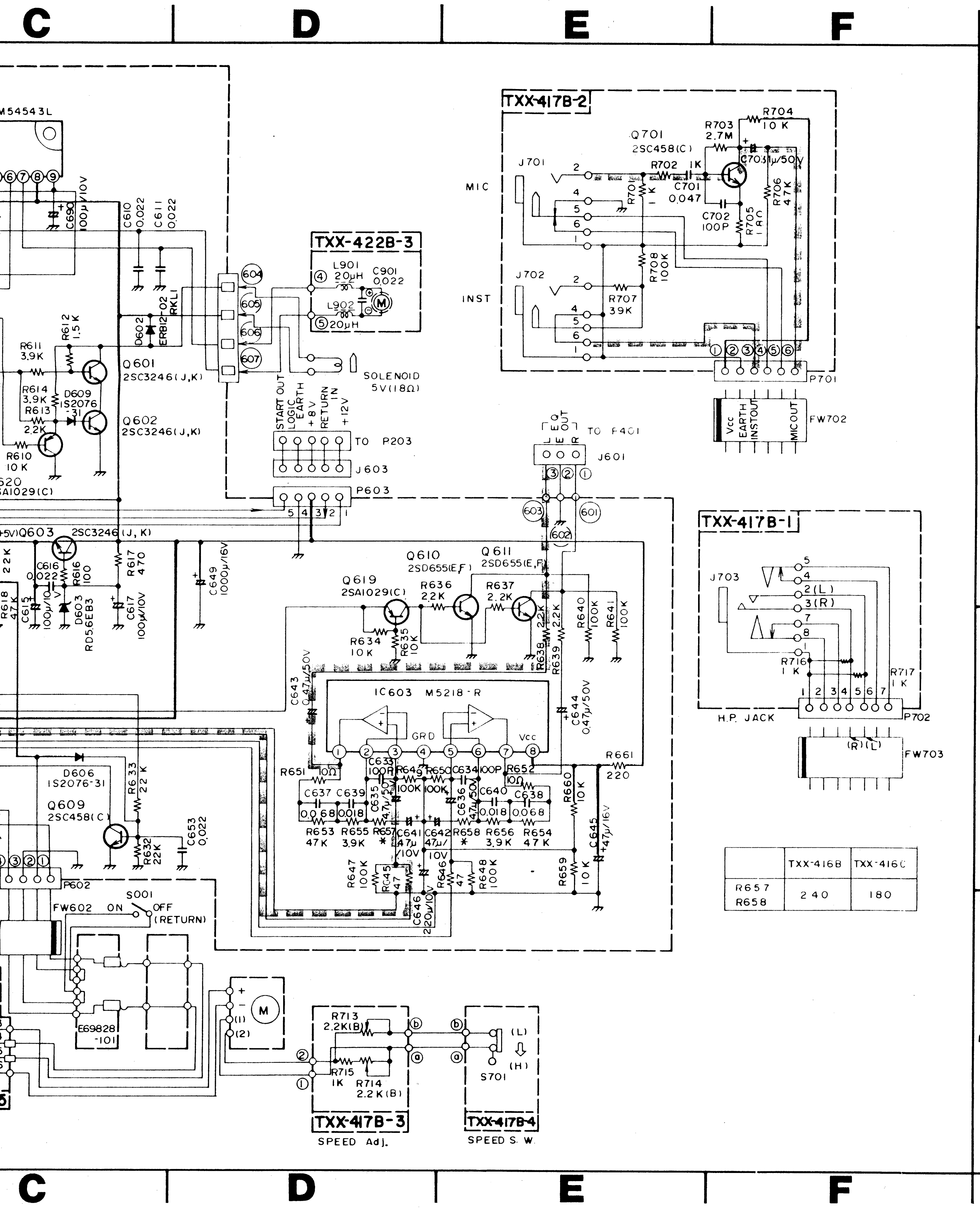
IC601	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PLAY	2.6 2.0	2.6 2.0	2.6 2.0	2.6 2.0	3.7 3.7	0	0	0	0	0	4.8 4.7	0	0	4.5 4.4	0	5.2 5.2
STOP	2.6 2.0	2.6 2.0	1.3 1.2	2.6 2.0	0	0	0	0	2.6 2.6	0	0	4.8 4.7	4.8 4.7	0	0	5.2 5.2
MANU. FWD	2.6 2.0	4.2 4.0	2.6 2.0	2.6 2.0	0	0	0	0	2.7 2.6	0	0	4.7 4.7	0	4.5 4.4	0	5.2 5.2
MANU. BACK	4.2 4.0	2.6 2.0	2.6 2.0	2.6 2.0	0	0	0	0	2.7 2.6	0	0	0	4.8 4.7	4.5 4.4	0	5.2 5.2

IC602	1	2	3	4	5	6	7	8	9
PLAY	8.3 8.3	8.3 8.3	8.2 8.2	0	0	0	7.6 7.6	8.3	8.3
STOP	8.3 8.3	8.3 8.3	0	4.8 4.8	0	4.7 4.7	0	8.4	84
MANU FWD	8.3 8.3	8.3 8.3	7.6 7.6	0	0	4.7 4.7	0	8.3	8.3
MANU BACK	8.3 8.3	8.3 8.3	0	4.8 4.8	0	0	7.6 7.6	8.3	8.3

IC603	1	2	3	4	5	6	7	8	9
——	3.9 3.9	3.9 3.9	2.9 2.5	0	3.9 2.5	3.9 3.9	3.9 3.9	3.9 3.9	7.7 7.7

	Q601			Q602			Q603			Q604			Q605		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	1.9 1.9	3.7 3.7	2.5 2.5	0	1.9 1.9	0.6 0.6	5.2 5.2	8.3 8.3	5.8 5.8	1.3 1.3	5.2 5.2	0	1.3 1.3	4.8 4.8	1.9 1.9
STOP	5.3	8	5.8	0	5.4	0.5	5.2	8.3	5.8	2.3	5.2	3.0	2.3	5.2	0.5
MANU. FWD	5.3	8	5.8	0	5.4	0.5	5.2	8.3	5.8	2.3	5.2	3.0	2.3	5.2	0.5
MANU. BACK	5.3	8	5.8	0	5.4	0.5	5.2	8.3	5.8	2.3	5.2	3.0	2.3	5.2	0.5

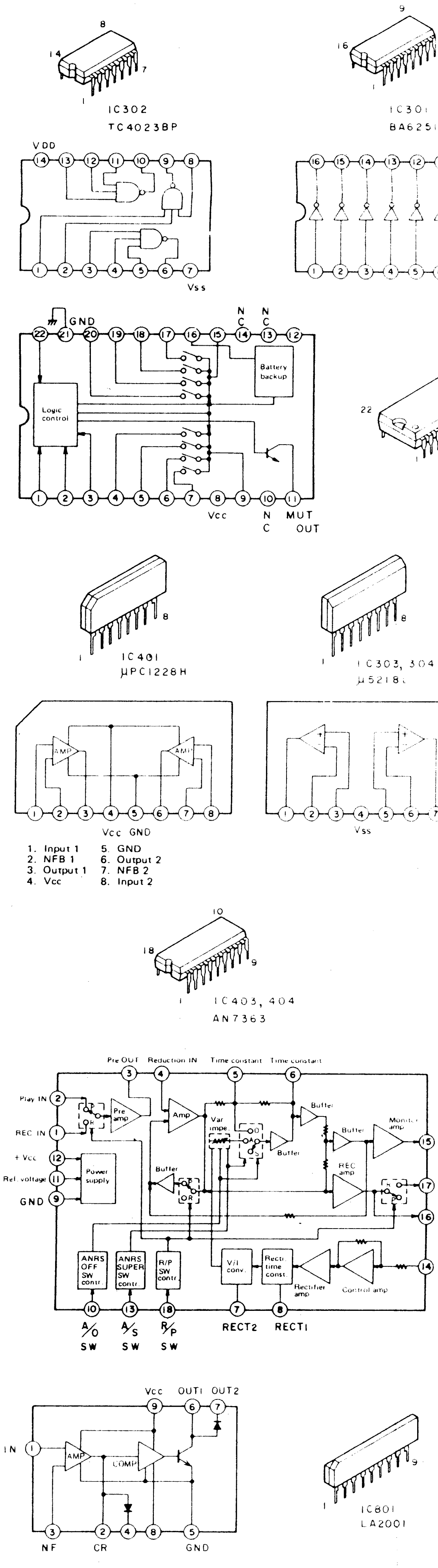
	Q619			Q620			Q901			Q902		
	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	0	0	0	1.0 1.0	0	4.8 4.8	0.2 0.1	8.3 8.3	0.9 0.9	0	5.0 5.0	0.2 0.2
STOP	2.6 2.6	2.6 2.6	2.0 2.0	0.8 0.8	0	0.2 0.2	0.1 0	8.3 8.3	0.7 0.7	0	5.0 5.0	0
MANU. FWD	2.6 2.6	2.6 2.6	2.0 2.0	0.8 0.8	0	0.2 0.2	0.1 0	8.3 8.3	0.7 0.7	0	5.0 5.0	0
MANU. BACK	2.6 2.6	2.6 2.6	2.0 2.0	0.8 0.8	0	0.2 0.2	0.1 0	8.3 8.3	0.7 0.7	0	5.0 5.0	0



	TXX-416B	TXX-416C
R657 R658	240	180

Notes:

1. ——— indicates positive B (+) power supply.
2. ▨ indicates signal path.
3. When replacing the parts in the darkened area (and those marked with ⚠ , be sure to use the c nated parts to ensure safety.
4. This is the standard circuit diagram. The design contents are subject to change without notice.



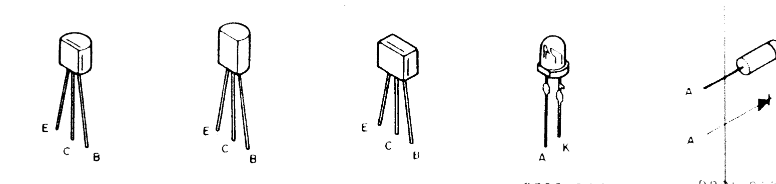
8	9
.3	8.3
.4	84
.3	8.3
.3	8. 3

	Q 601			Q 602			Q 603			Q 604			Q 605			Q 606		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	1.9 / 1.9	3.7 / 3.7	2.5 / 2.5	0	1.9 / 1.9	0.6 / 0.6	5.2 / 5.2	8.3 / 8.3	5.8 / 5.8	1.3 / 1.3	5.2 / 5.2	0	1.3 / 1.3	4.8 / 4.8	1.9 / 1.9	5.2 / 5.2	0	5.2 / 5.0
STOP	5.3	8	5.8	0	5.4	0.5	5.2	8.3	5.8	2.3	5.2	3.0	2.3	5.2	0.5	5.2	0	5.2 / 5.0
MANU. FWD	5.3	8	5.6	0	5.4	0.5	5.2	8.3	5.8	2.3	5.2	3.0	2.3	5.2	0.5	5.2	0	5.2 / 5.0
MANU. BACK	5.3	8	5.8	0	5.4	0.5	5.2	8.3	5.8	2.3	5.2	3.0	2.3	5.2	0.5	5.2	0	5.2 / 5.0

	Q 607			Q 608			Q 609			Q 610			Q 611		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	0	0	0.7 / 0.7	0	0	0.7 / 0.7	0	2.6 / 1.8	0	0	ↄ	0	0	0	0
STOP	0	0	0.6	0	13.2 / 13	0	0	2.6 / 1.8	0	0	0	0.7	0	0	0.7
MANU. FWD	0	0	0.6	0	0	0.7	0	5.1	0	0	0	0.7	0	0	0.7
MANU. BACK	0	0	0.6	0	0	0.7	0	5.1	0	0	0	0.7	0	0	0.7

	Q 619			Q 620			Q 901			Q 902		
	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	0	0	0	1.0 / 1.0	0	4.8 / 4.8	0.2 / 0.1	8.3 / 8.3	0.9 / 0.9	0	5.0 / 5.0	0.2 / 0.2
STOP	2.6 / 2.6	2.6 / 2.6	2.0 / 2.0	0.8 / 0.8	0	0.2 / 0.2	0.1 / 0	8.3 / 8.3	0.7 / 0.7	0	5.0 / 5.0	0
MANU. FWD	2.6 / 2.6	2.6 / 2.6	2.0 / 2.0	0.8 / 0.8	0	0.2 / 0.2	0.1 / 0	8.3 / 8.3	0.7 / 0.7	0	5.0 / 5.0	0
MANU. BACK	2.6 / 2.6	2.6 / 2.6	2.0 / 2.0	0.8 / 0.8	0	0.2 / 0.2	0.1 / 0	8.3 / 8.3	0.7 / 0.7	0	5.0 / 5.0	0

X701	E	C	B
——	0.1 / 0.1	3 / 3	0.7 / 0.5



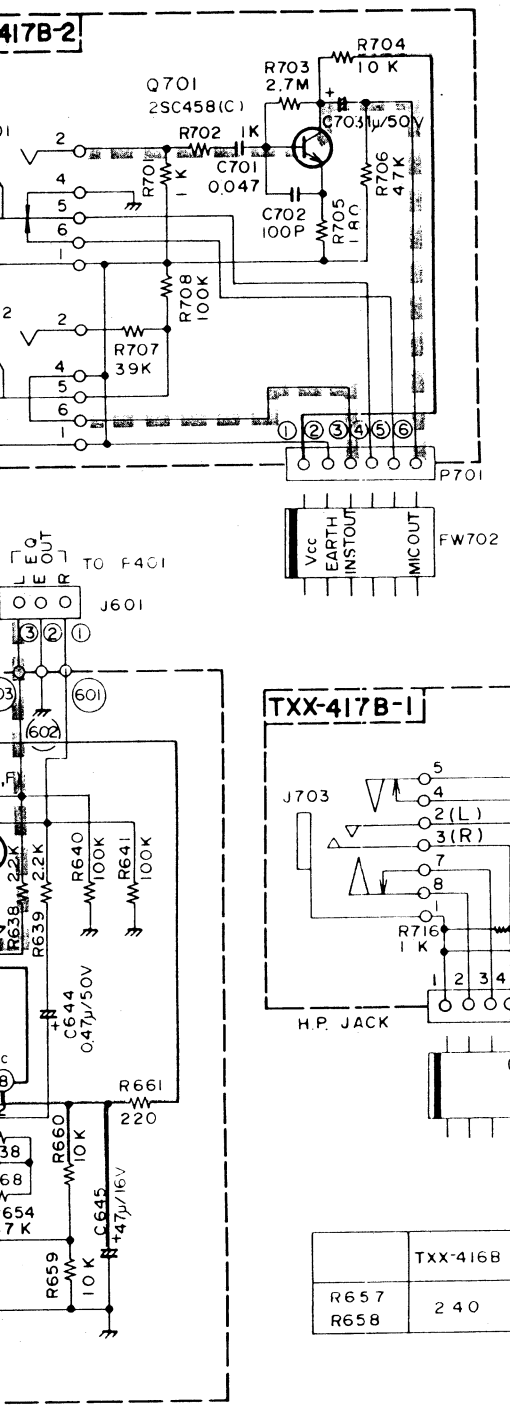
Q305, 309~313
2SA733A(P,Q)
Q301, 302, 308
Q401 ~ 406
Q419 ~ 425, 430
2SC1685(Q,R)
Q407, 408
2SC1775AV(E)
Q417, 418
2SC2240(BL)
Q303, 304
2SD655(D,E,F)

Q429
2SD467(C)

Q802~804
Q851
2SC2785(H,F,E)

D308, 309
TLS114
D303~307
SLA55MT5F

D801, 80
D851
MA165TA5
D301
D401~407,
MA150TA



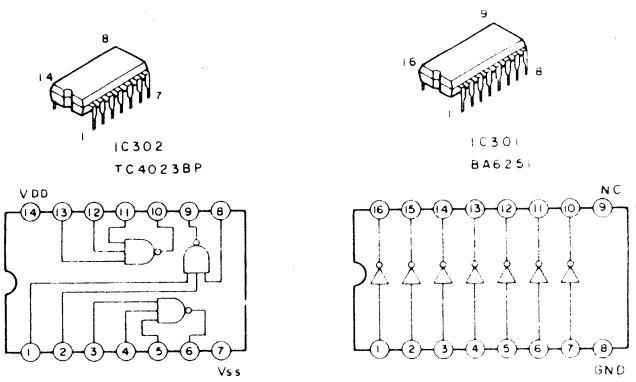
	TXX-416B	TXX-416C
R657 R658	240	180

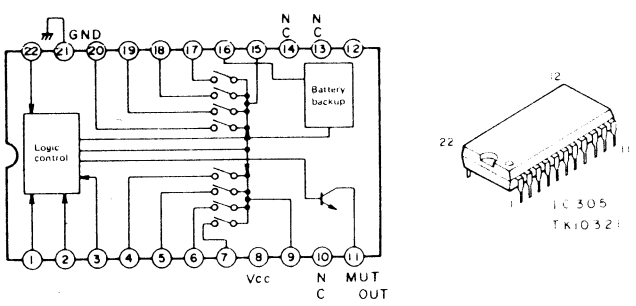
	Q607			Q608			Q609			Q610			Q611		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
	0	0	0.7 0.7	0	0	0.7 0.7	0	2.6 1.8	0	0	0	0	0	0	0
	0	0	0.6	0	13.2 13	0	0	2.6 1.8	0	0	0	0.7	0	0	0.7
	0	0	0.6	0	0	0.7	0	5.1	0	0	0	0.7	0	0	0.7
	0	0	0.6	0	0	0.7	0	5.1	0	0	0	0.7	0	0	0.7

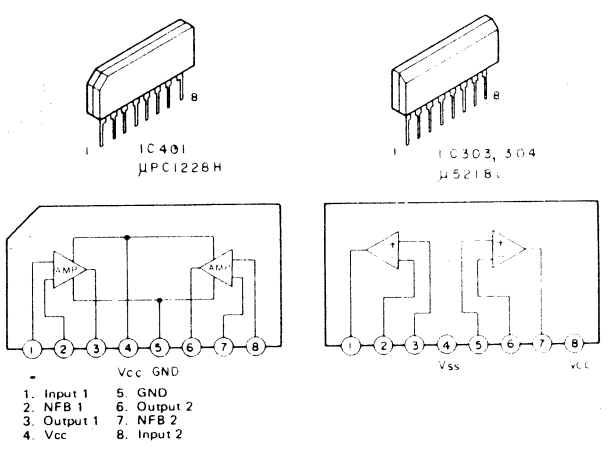
X701	E	C	B
——	0.1 0.1	3 3	0.7 0.5

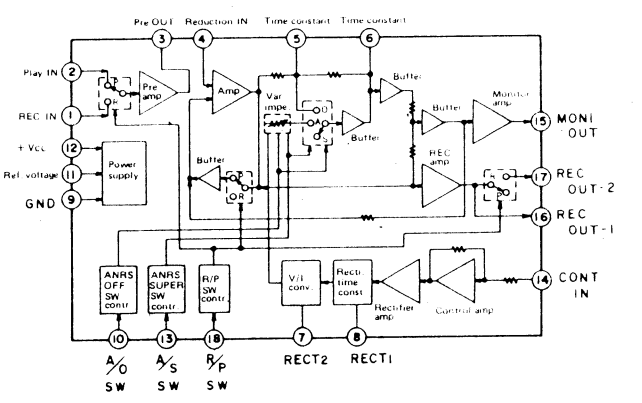
Notes:

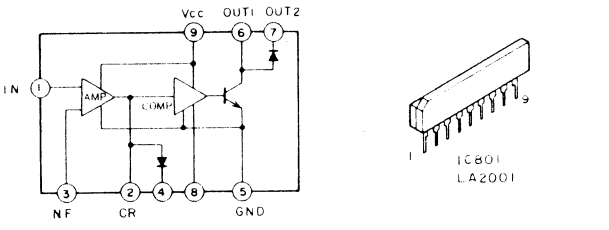
1. ——— indicates positive B (+) power supply.
2. ▒▒▒ indicates signal path.
3. When replacing the parts in the darkened area ( ) and those marked with ⚠ , be sure to use the designated parts to ensure safety.
4. This is the standard circuit diagram. The design and contents are subject to change without notice.

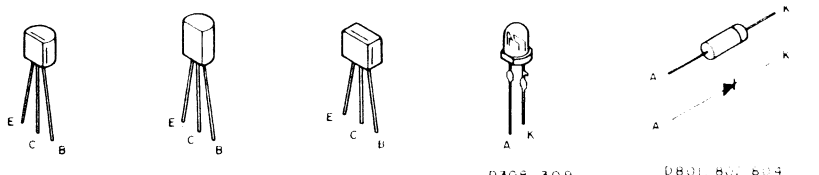












Q305, 309～313
2SA733A(P,Q)
Q301, 302, 308
Q401～406
Q419～425, 430
2SC1685(Q,R)
Q407, 408
2SC1775AV(E)
Q417, 418
2SC2240(BL)
Q303, 304
2SD655(D,E,F)

Q429
2SD467(C)

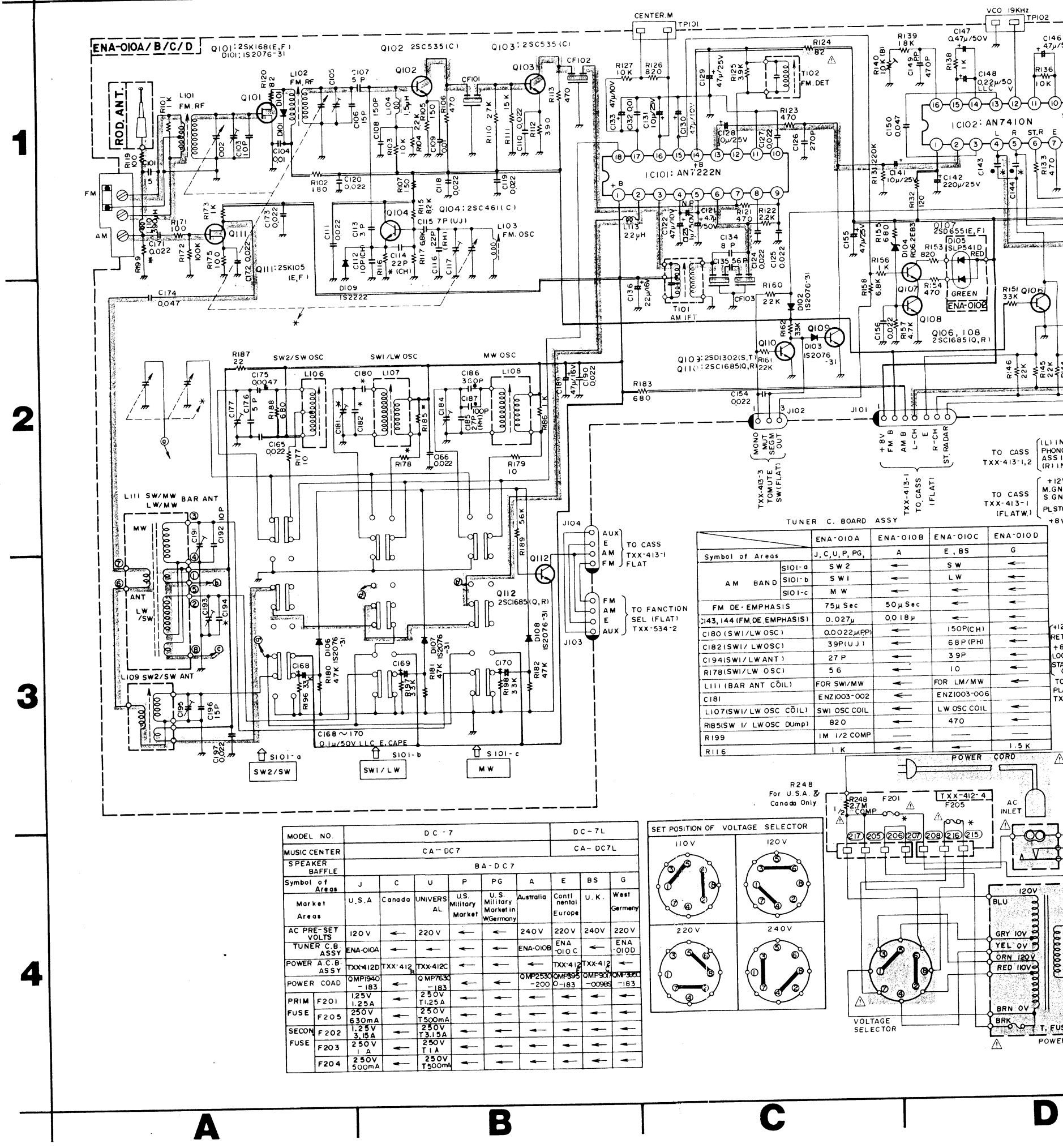
Q802～804
Q851
2SC2785(H,F,E)

D308, 309
TLS114
D303～307
SLA55MT5F

D801, 802, 804
D851
MA165TA5
D301
D401～407, 411～413
MA150TA

DC-7 Schematic Diagrams

Tuner amplifier section



Symbol of Areas		ENA-010A	ENA-010B	ENA-010C	ENA-010D
		J, C, U, P, PG,	A	E, BS	G
AM BAND	S101-a	SW 2	←	SW	←
	S101-b	SW 1	←	LW	←
	S101-c	MW	←	←	←
FM DE-EMPHASIS		75μ Sec	50μ Sec	←	←
C143, 144 (FM DE-EMPHASIS)		0.027μ	0.018μ	←	←
C180 (SW1/LW OSC)		0.0022μ(PP)	←	150P(CH)	←
C182 (SW1/LW OSC)		39P(UJ)	←	68P(PH)	←
C194 (SW1/LW ANT)		27 P	←	39P	←
R178 (SW1/LW OSC)		56	←	10	←
L111 (BAR ANT COIL)		FOR SW1/MW	←	FOR LM/MW	←
C181		ENZ1003-002	←	ENZ1003-006	
L107 (SW1/LW OSC COIL)		SW1 OSC COIL	←	LW OSC COIL	←
R185 (SW 1/ LW OSC Dump)		820	←	470	←
R199		1M 1/2 COMP	—	—	—
R116		1 K	←	←	1.5 K

MODEL NO.		DC-7								DC-7L
MUSIC CENTER		CA-DC7								CA-DC7L
SPEAKER BAFFLE		BA-DC7								
Symbol of Areas		J	C	U	P	PG	A	E	BS	G
Market Areas		U.S.A	Canada	UNIVERSAL	U.S. Military Market	U.S. Military Market in WGermany	Australia	Continental Europe	U.K.	West Germeny
AC PRE-SET VOLTS		120V	←	220V	←	←	240V	220V	240V	220V
TUNER C.B ASSY		ENA-010A	←	←	←	←	ENA-010B	ENA-010C	←	ENA-010D
POWER A.C.B. ASSY		TXX-412D	TXX-412B	TXX-412C	←	←	←	TXX-412E	TXX-412C	←
POWER COAD		QMP1940-183	←	QMP7630-183	←	←	QMP2530-200	QMP3950-183	QMP9070-00983	QMP3960-183
PRIM FUSE	F201	125V 1.25A	←	250V T1.25A	←	←	←	←	←	←
	F205	250V 630mA	←	250V T500mA	←	←	←	←	←	←
SECON FUSE	F202	125V 3.15A	←	250V T3.15A	←	←	←	←	←	←
	F203	250V 1A	←	250V T1A	←	←	←	←	←	←
	F204	250V 500mA	←	250V T500mA	←	←	←	←	←	←

Voltage Values

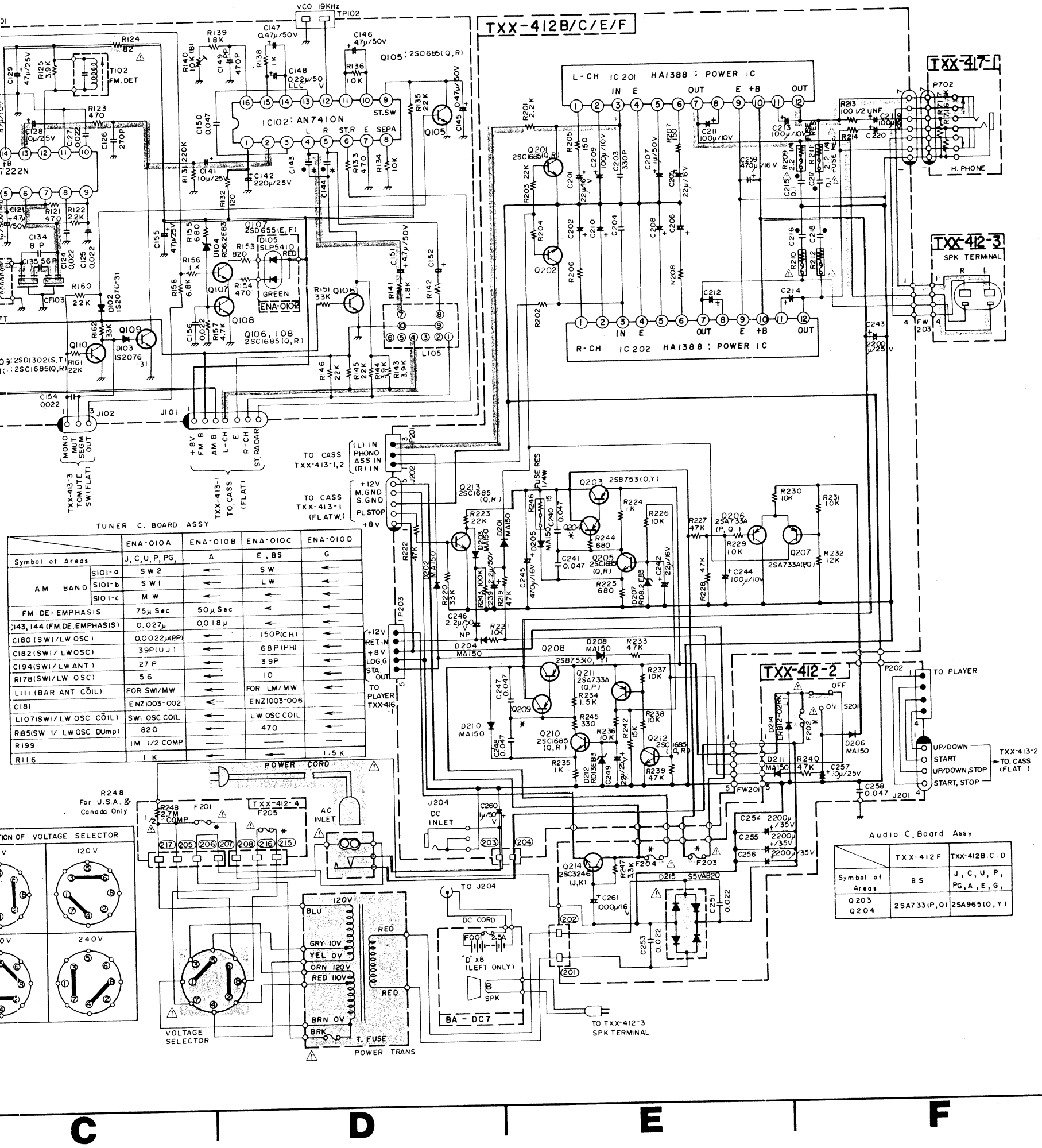
IC101	1	2	3	4	5	6	7	8
AM	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
FM AUTO	4.9	5.6	5.7	5.6	0	5.7	5.7	0
	4.9	5.7	5.7	5.7	0	5.7	5.7	0

IC102	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
FM	0.6	0.6	0.6		0.3	7.0	7.0	7.0	7.0	6.8	0	7.4	1.0	7.4	0.8	2.0	1.5	0.6
	0.5	0.5	0.5	0.5	0	6.3	6.3	6.3	6.3	6.3	0	7.4	0.8	7.4	0.8	2.0	1.5	0.3
AM	5.3	5.3	5.3	0.9	1.6	7.5	7.5	7.5	7.5	7.1	0	8.0	0.7	8.0	0	0.1	0.1	5.3
	5.3	5.3	5.3	0.9	1.5	7.0	7.0	7.0	7.0	7.0	0	8.0	0.8	8.0	0	0.1	0.1	5.3

IC103	1	2	3	4	5	6	7	8	9	10	11	12	13
MONO	6.7	1.4	1.4	2.3	2.4	6.8	0	0.46	2.0	1.3	1.3	0.1	1.4
	6.7	1.0	1.3	2.3	2.4	6.6	0	0.4	2.0	1.2	1.2	0.1	1.2
ST	6.7	1.4	1.4	2.3	2.4	0.8	0	0.46	0.1	1.3	1.3	1.1	1.4
	6.7	1.0	1.3	2.3	2.4	0.8	0	0.4	0.1	1.2	1.2	1.0	1.2
AM	6.7	1.4	1.4	2.3	2.4	0.2	0	0.46	2.0	1.3	1.3	0.2	1.4
	6.7	1.0	1.3	2.3	2.4	0	0	0.4	1.6	1.2	1.2	0.1	1.2

	Q101			Q102			Q103			Q104			Q105			Q106			Q107			Q108			Q109			Q110			Q111		
	S	D	G	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	S	D	G
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4	0.6	0	0	0	0	2.0	0.7	0	0	0.7	0	0	0	0	0	0.5	0	3.4	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4	0.4	0	0	0	0	2.0	0.6	0	0	0.7	0	0	0	0	0	0.5	0	3.4	0
FM ST	0	2.8	0	0.7	6.1	1.4	1.8	5.9	2.5	2.8	8.1	3.5	0	0.1	0.6	0	0	0.6	0	4.8	0.7	0	0	0.7	0	0	0	0	0.1	0.6	0	0	0
	0	2.8	0	0.7	6.1	1.4	1.8	5.9	2.5	2.8	8.1	3.5	0	0.1	0.4	0	0	0.6	0	4.6	0.5	0	0	0.7	0	0	0	0	0.1	0.6	0	0	0
FM MONO	0	2.8	0	0.7	6.1	1.4	1.8	5.9	2.5	2.8	8.1	3.5	0	2.0	0	0	0	0.6	0	4.8	0.7	0	0	0.7	0	0	0	0	0	0	0	0	0
	0	2.8	0	0.7	6.1	1.4	1.8	5.9	2.5	2.8	8.1	3.5	0	2.0	0	0	0	0.3	0	5.8	0.5	0	0	0.7	0	0	0	0	0	0	0	0	0

	Q203			Q204			Q205			
	E	C	B	E	C	B	E	C	B	E
POWER ON	19.3	8.4	18.7	18.2	8.4	18.7	7.5	18.1	18.2	5.0
	19	8.0	19	18.0	8.0	19	7.5	18	18	5.0
POWER OFF	20	0	21	20	0	20.5	0	20.5	0	0
	20	0	21	20	0	20.5	0	20.5	0	0



		ENA-010A	ENA-010B	ENA-010C	ENA-010D
Symbol of Areas		J, C, U, P, PG,	A	E, BS	G
AM BAND	S101-a	SW 2	←	SW	←
	S101-b	SW 1	←	LW	←
	S101-c	M W	←	←	←
FM DE-EMPHASIS		75μ Sec	50μ Sec	←	←
C143, 144 (FM DE-EMPHASIS)		0.027μ	0.018μ	←	←
C180 (SW1/LW OSC)		0.0022μ(P,P)	←	150P(CH)	←
C182 (SW1/ LWOSC)		39P(UJ)	←	68P(PH)	←
C194 (SW1/LW ANT)		27 P	←	39P	←
R178 (SW1/LW OSC)		56	←	10	←
L111 (BAR ANT COIL)		FOR SW1/MW	←	FOR LM/MW	←
C181		ENZ1003-002	←	ENZ1003-006	
L107 (SW1/ LW OSC COIL)		SW1 OSC COIL	←	LW OSC COIL	←
R185 (SW 1/ LW OSC DUmp)		820	←	470	←
R199		1M 1/2 COMP	—	—	—
R116		1 K	←	←	1.5 K

	TXX-412F	TXX-412B.C.D
Symbol of Areas	BS	J, C, U, P, PG, A, E, G,
Q203	2SA733(P,Q)	2SA965(O,Y)
Q204		

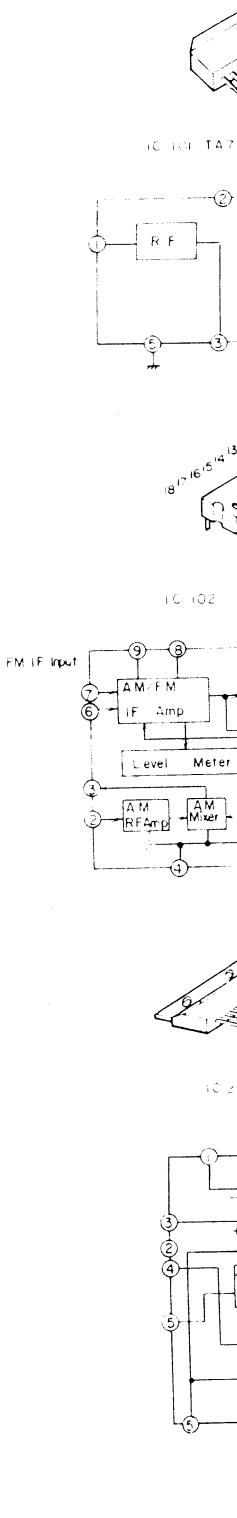
IC103	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	NOTE
MONO	6.7	1.4	1.4	2.3	2.4	6.8	0	0.46	2.0	1.3	1.3	0.1	1.4	1.3	1.4	0.2	
	6.7	1.0	1.3	2.3	2.4	6.6	0	0.4	2.0	1.2	1.2	0.1	1.2	1.2	1.2	0.2	
S T	6.7	1.4	1.4	2.3	2.4	0.8	0	0.46	0.1	1.3	1.3	1.1	1.4	1.3	1.4	0.2	ST reception
	6.7	1.0	1.3	2.3	2.4	0.8	0	0.4	0.1	1.2	1.2	1.0	1.2	1.2	1.2	0.2	
A M	6.7	1.4	1.4	2.3	2.4	0.2	0	0.46	2.0	1.3	1.3	0.2	1.4	1.3	1.4	0.2	
	6.7	1.0	1.3	2.3	2.4	0	0	0.4	1.6	1.2	1.2	0.1	1.2	1.2	1.2	0.2	

IC201 / 202	1	2	3	4	5	6	7	8	9	10	11	12
	1.0	4.5	0	0	1.4	1.0	6.7	12.9	0	13.3	13.0	6.8
	1.0	4.4	0	0	1.4	1.0	6.7	12.9	C	13.3	13.0	6.8

	Q 203			Q 204			Q 205			Q 206			Q 207			Q 208			Q 209			Q 210			Q 211			Q 212		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
POWER ON	19.3	8.4	18.7	18.2	8.4	18.7	7.5	18.1	18.2	5.0	0	4.4	5.0	0	10.0	19.4	13.3	18.8	18.2	13.3	19	13.2	17.9	12.6	19.4	19.3	18.7	0	0	0.7
	19	8.0	19	18.0	8.0	19	7.5	18	18	5.0	0	4.2	5.0	0	10.0	19	13	19	18	13	18.8	12.5	17.5	13	19	19	18	0	0	0.7
POWER OFF	20	0	21	20	0	20.5	0	20.5	0	0	0	0.6	0.8	1.4	0.6	20	0	20.5	20	0	20.5	0	20.5	0	20.5	0	20.5	0	20.5	0
	20	0	21	20	0	20.5	0	20.5	0	0	0	0.6	0.7	1.4	0.6	20	0	20.5	20	0	20.5	0	20.5	0	20.5	0	20.5	0	20	0

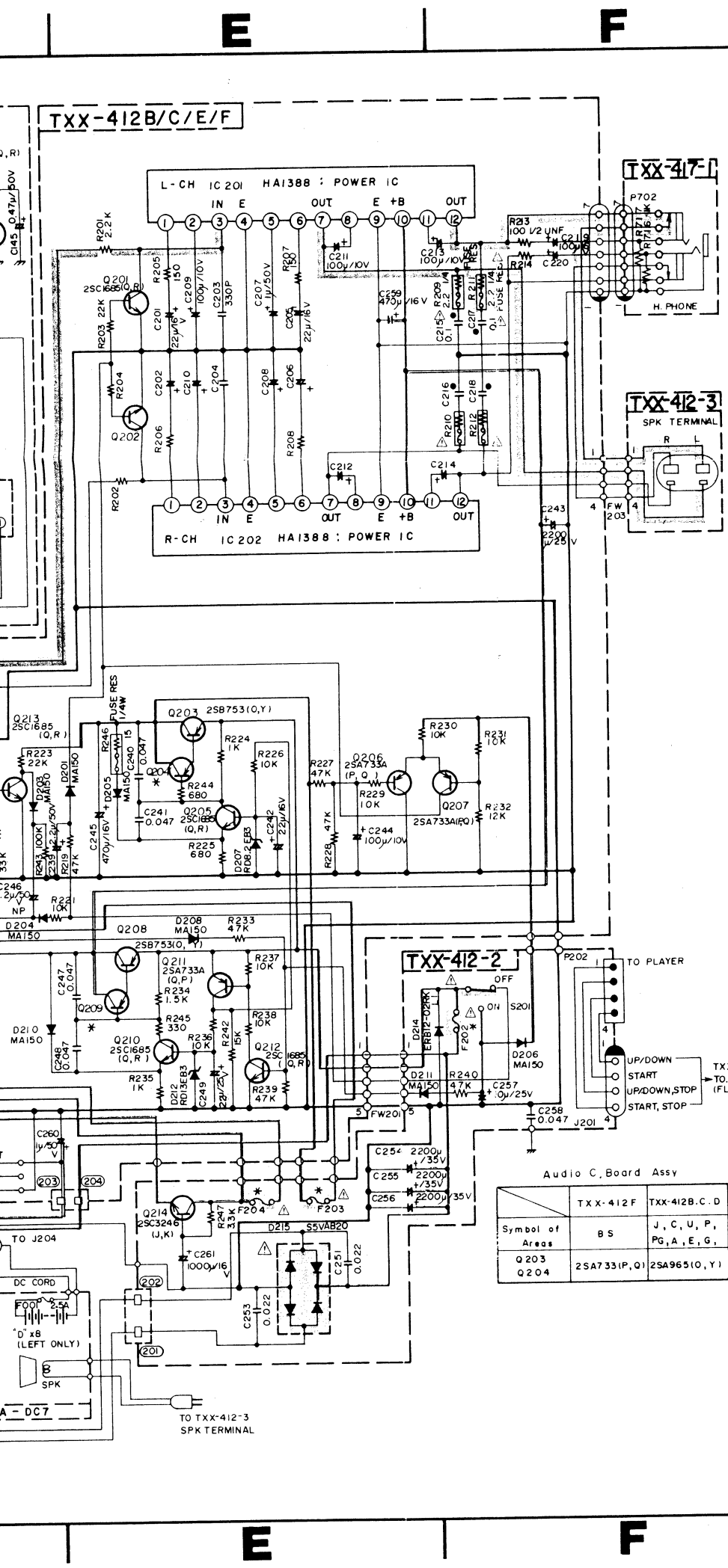
	Q 213			Q 214		
	E	C	B	E	C	B
PHONO ON	0	0	0.6	13.0	13.4	12.3
	0	0	0.6	13.0	13.4	12.3
PHONO OFF	0	7.0	0	13.0	13.4	12.3
	0	7.0	0	13.0	13.4	12.3

Notes:
1. ——— indicates positive
2. ——— indicates signal p
3. When replacing the pa area ( ) and thos be sure to use the des sure safety.

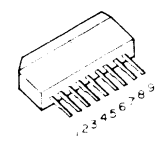


Notes:

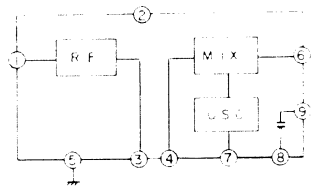
1. ——— indicates positive B (+) power supply.
2. ——— indicates signal path.
3. When replacing the parts in the darkened area ( ) and those marked with ⚠, be sure to use the designated parts to ensure safety.

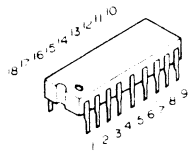


	TXX-412F	TXX-412B.C.D
Symbol of Areas	BS	J, C, U, P, PG, A, E, G,
Q203 Q204	2SA733(P,Q)	2SA965(O,Y)

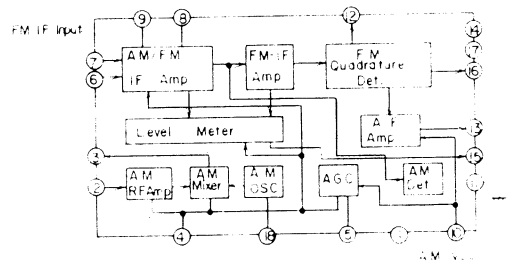


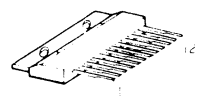
IC 101 TA7335P



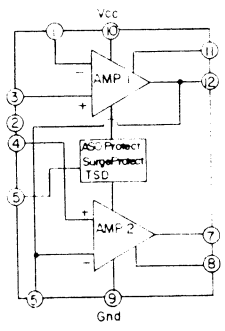


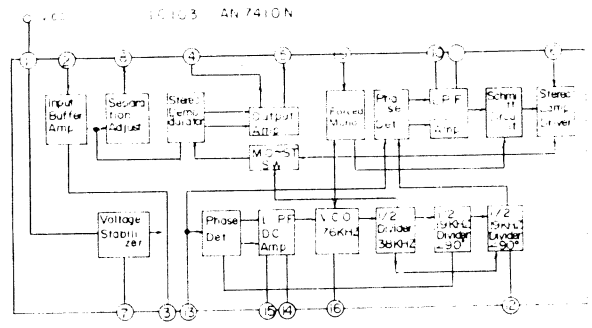
IC 102 AN 7222N





IC 201, 202 HA 1388





IC 103 AN 7410N

IC201 / 202	1	2	3	4	5	6	7	8	9	10	11	12
	1.0 1.0	4.5 4.4	0 0	0 0	1.4 1.4	1.0 1.0	6.7 6.7	12.9 12.9	0 C	13.3 13.3	13.0 13.0	6.8 6.8

OTE
reception

07		Q 208			Q 209			Q 210			Q 211			Q 212		
	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
	10.0	19.4	13.3	18.8	18.2	13.3	19	13.2	17.9	12.6	19.4	19.3	18.7	0	0	0.7
0	10.0	19	13	19	18	13	18.8	12.5	17.5	13	19	19	18	0	0	0.7
4	0.6	20	0	20.5	20	0	20.5	0	20.5	0	20.5	0	20.5	0	20.5	0
.4	0 6	20	0	20.5	20	0	20.5	0	20	0	20	0	20	0	20	0

	Q 213			Q 214		
	E	C	B	E	C	B
PHONO ON	0	0	0.6	13.0	13.4	12.3
	0	0	0.6	13.0	13.4	12.3
PHONO OFF	0	7.0	0	13.0	13.4	12.3
		7.0		13.0	13.4	12.3

Cassette section

Voltage Values

IC301	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHONO	0	0	1.3	0	0	0	1.8 1.3	0	0	0.1	0.1 0.1	7.6 7.4	0.78 0.78	0	7.1 6.7	0
TAPE	2.0 1.6	0	0	0	0	0	1.8 1.3	0	0	0.1 0.1	0.2 0	7.6 7.4	7.1 6.7	0	0.8 0.77	0
TUNER	0	0	0	0	0	0	0.5 0	0	0	8 7.7	0.1	0.9	7.1 6.7	0	7.1 6.7	0
AUX	0	0	0	0	0	0	1.8 1.3	0	0	0.1	0.1	7.6 7.4	7.2 6.8	0	7.1 6.7	0
AUX REC	5.6 5.3	0	0	0	0	0	1.8 1.3	0	0	0.1 0.1	0.1 0.1	7.6 7.4	7.1 6.7	0	7.1 6.7	0

IC302	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHONO	0.1	8	8	8	8	0	0	8 7.9	8 7.9	8 7.9	8 7.9	8 7.9	0.1 0.1	8 7.9
TAPE	0.1	8	8	8	8	0	0	8 7.9	8 7.9	8 7.9	8 7.9	8 7.9	0.1 0.1	8 7.7
A M	8	8	8	8	8	0	0	8 7.9	0	8 7.9	0	8 7.7	8 7.7	8 8
F M	8	8	8	8	8	0	0	0	8 7.9	0	8 7.9	8 7.9	8 7.9	8 7.9
AUX	0.1	8	8	8	8	0	0	8 7.9	8 7.9	8 7.9	8 7.9	8 7.9	0.1 0.1	8 7.9

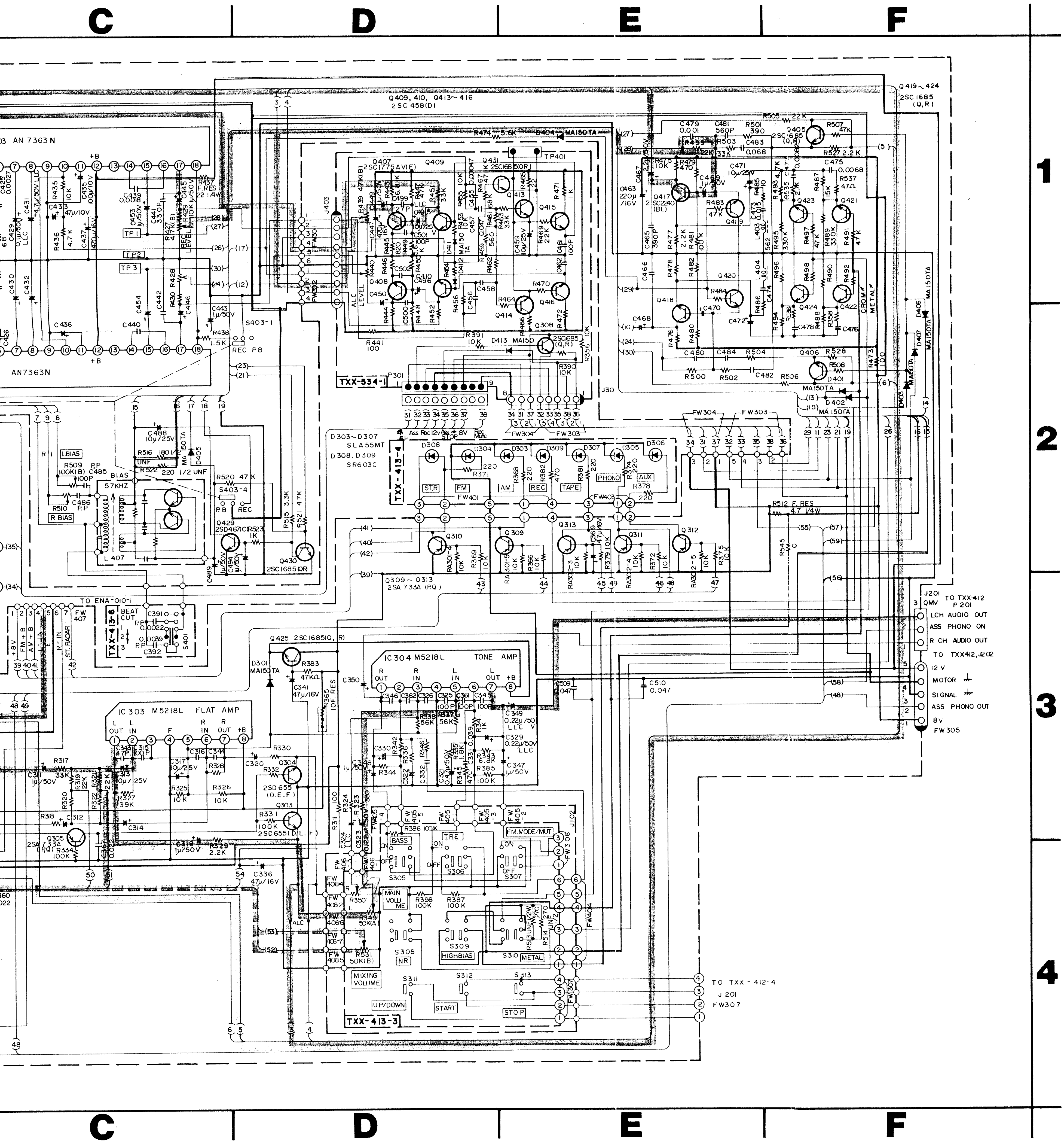
IC305	1	2	3	4	5	6	7	8	9	10	11
PHONO	0.78 0.78	7.6 7.4	7.1 6.6	3.7 1.5	3.6 1.5	3.7 1.5	3.7 1.5	7.4 7.4	3.7 3.7	0.1 0.1	0.1 0.1
TAPE	7.1 6.6	7.6 7.4	7.1 6.6	3.7 1.5	3.6 1.5	3.7 1.5	3.7 1.5	7.4 7.4	3.7 3.7	0.1 0.1	0.1 0.1
TUNER	7.1 6.6	0.9 0.9	7.1 6.6	3.7 1.5	3.6 1.5	3.7 1.5	3.7 1.5	7.4 7.4	3.7 3.7	0.1 0.1	0.1 0.1
AUX	7.1 6.6	7.6 7.4	0.8 0.8	3.7 1.5	3.6 1.5	3.7 1.5	3.7 1.5	7.4 7.4	3.7 3.7	0.1 0.1	0.1 0.1

IC303	1	2	3	4	5	6	7	8
	3.7	3.7	3.7 3.6	0	3.7 3.6	3.7	3.7	7.4

IC304	1	2	3	4	5	6	7	8
	3.7	3.7	3.7 2.9	0	3.7 2.9	3.7	3.7	6.2

IC401	1	2	3	4	5	6	7	8
	1.3 0.6	0.8 0.6	3.2	7.1	0	2.6	0.8 0.6	1.3 0.6

IC403, 404		1	2	3	4	5	6	7	8	9
TAPE PLAY	NR OFF	4.1 3.3	4.1 3.3	4.0 4.0	4.1 3.3	4.1 4.1	4.2 4.1	4.1 4.0	4.1 4.0	0
	NR ON	4.1 3.3	4.1 3.3	4.1 4.1	4.1 3.3	4.1 4.1	4.2 4.2	4.1 4.0	4.2 4.2	0
REC	NR OFF	4.1 3.3	4.1 3.3	4.0 4.0	4.1 3.3	4.1 4.1	4.2 4.2	4.1 4.0	4.1 4.0	0
	NR ON	4.1 3.3	4.1 3.3	4.1 4.1	4.1 3.3	4.1 4.1	4.2 4.2	4.1 4.0	4.2 4.2	0



Notes:

1. indicates posi
2. The signal pathes ar
   : TAPE PLAY
   : PHONO
   : REC
   : MIC
3. When replacing the and those marked v nated parts to ensur
4. This is the standar contents are subject

Q301 E	Q301 C	Q301 B	Q302 E	Q302 C	Q302 B	Q308 E	Q308 C	Q308 B	
0	0	0.6 / 0.6	0	0	0.6 / 0.6	5.9 / 5.8	8	6.4 / 6.0	PHONO
0	0	0.6 / 0.6	0	6.0 / 5.8	0.2 / 0.14	0.2 / 0.1	8	0	TAPE
0	0	0.6 / 0.6	0	0	0.6 / 0.6	5.9 / 5.8	8	6.4 / 6.0	TUNER
0	0	0.6 / 0.6	0	0	0.6 / 0.6	5.9 / 5.6	8	6.4 / 6.0	AUX

	Q309 E	Q309 C	Q309 B	Q310 E	Q310 C	Q310 B	Q311 E	Q311 C	Q311 B	Q312 E	Q312 C	Q312 B	Q313 E	Q313 C	Q313 B
PHONO	8.3 / 8	0 / 0	8.3 / 8.3	8.3 / 8.3	0 / 0	8.3 / 8.3	8.3 / 8.3	8.2 / 8.2	7.9 / 7.9	8.3 / 8.3	1.6 / 1.6	7.9 / 7.9	8.3 / 8.3	0.7 / 0.7	7.9 / 7.9
TAPE	8.3 / 8.3	0 / 0	8.3 / 8.3	8.3 / 8.3	0 / 0	8.3 / 8.3	8.3 / 8.3	0 / 0	7.9 / 7.9	8.3 / 8.3	1.6 / 1.6	7.9 / 7.9	8.3 / 8.3	8.2 / 8.2	7.9 / 7.9
FM	8.3 / 8.3	0 / 0	8.3 / 8.3	8.3 / 8.3	8.2 / 8.2	7.6 / 7.6	8.3 / 8.3	0 / 0	7.9 / 7.9	8.3 / 8.3	1.6 / 1.6	7.9 / 7.9	8.3 / 8.3	0.7 / 0.7	7.9 / 7.9
AM	8.3 / 8.3	8.1 / 8.1	7.6 / 7.6	8.3 / 8.3	0 / 0	8.3 / 8.3	8.3 / 8.3	0 / 0	7.9 / 7.9	8.3 / 8.3	1.6 / 1.6	7.9 / 7.9	8.3 / 8.3	0.7 / 0.7	7.9 / 7.9

	Q429 E	Q429 C	Q429 B	Q430 E	Q430 C	Q430 B	Q403,404 E	Q403,404 C	Q403,404 B	Q405,406 E	Q405,406 C	Q405,406 B	Q409 E	Q409 C	Q409 B	NOTE
AUX	0 / 0	7.6 / 7.5	0 / 0	0 / 0	0 / 0	0.6 / 0.6	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	
REC	0 / 0	0 / 0	0.7 / 0.7	0 / 0	3.6 / 3.6	0.1 / 0.1	0 / 0	0 / 0	0.6 / 0.6	0 / 0	0 / 0	0.6 / 0.6	0 / 0	0 / 0	0.6 / 0.6	
REC PAUSE	0 / 0	7.8 / 7.8	0 / 0	0 / 0	0 / 0	0.7 / 0.7	0 / 0	0 / 0	0.6 / 0.6	0 / 0	0 / 0	0.6 / 0.6	0 / 0	0 / 0	0.4 / 0.3	

8	9	10	11	12	13	14
8 / 7.9	8 / 7.9	8 / 7.9	8 / 7.9	8 / 7.9	0.1 / 0.1	8 / 7.9
8 / 7.9	8 / 7.9	8 / 7.9	8 / 7.9	8 / 7.9	0.1	8 / 7.7
8 / 7.9	0	8 / 7.9	0	8 / 7.7	8 / 7.7	8 / 8
0	8 / 7.9	0	8 / 7.9	8 / 7.9	8 / 7.9	8 / 7.9
8 / 7.9	8 / 7.9	8 / 7.9	8 / 7.9	8 / 7.9	0.1 / 0.1	8 / 7.9

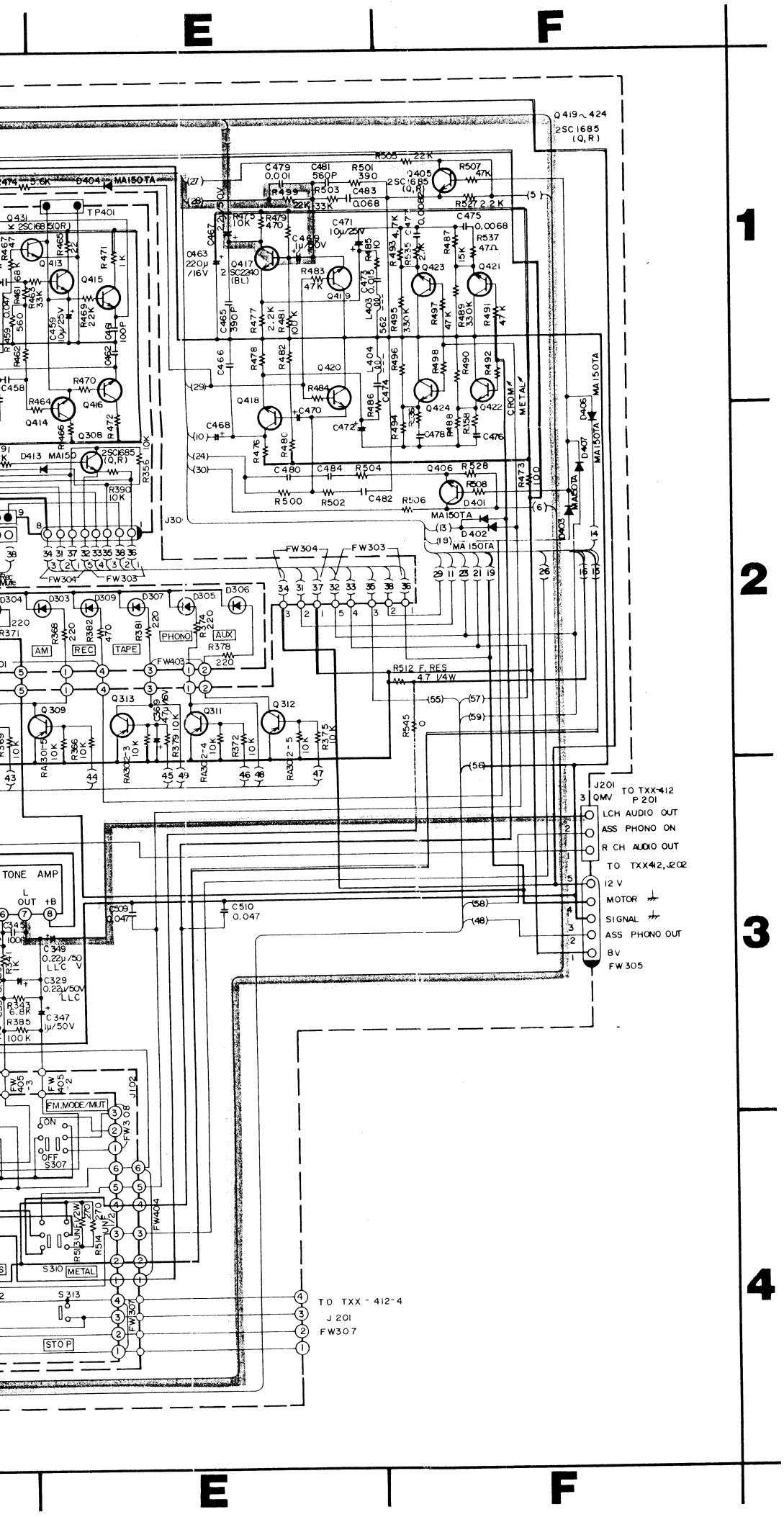
IC305	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
PHONO	0.78 / 0.78	7.6 / 7.4	7.1 / 6.6	3.7 / 1.5	3.6 / 1.5	3.7 / 1.5	3.7 / 1.5	7.4 / 7.4	3.7 / 3.7	0.1 / 0.1	0.1 / 0.1	0	0	3.7 / 1.5	3.7 / 3.7	7.4 / 7.4	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	0	7.1 / 6.7
TAPE	7.1 / 6.6	7.6 / 7.4	7.1 / 6.6	3.7 / 1.5	3.6 / 1.5	3.7 / 1.5	3.7 / 1.5	7.4 / 7.4	3.7 / 3.7	0.1 / 0.1	0.1 / 0.1	0	0	3.7 / 1.5	3.7 / 3.7	7.4 / 7.4	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	0	0.8 / 0.8
TUNER	7.1 / 6.6	0.9 / 0.9	7.1 / 6.6	3.7 / 1.5	3.6 / 1.5	3.7 / 1.5	3.7 / 1.5	7.4 / 7.4	3.7 / 3.7	0.1 / 0.1	0.1 / 0.1	0	0	3.7 / 1.5	3.7 / 3.7	7.4 / 7.4	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	0	7.1 / 6.7
AUX	7.1 / 6.6	7.6 / 7.4	0.8 / 0.8	3.7 / 1.5	3.6 / 1.5	3.7 / 1.5	3.7 / 1.5	7.4 / 7.4	3.7 / 3.7	0.1 / 0.1	0.1 / 0.1	0	0	3.7 / 1.5	3.7 / 3.7	7.4 / 7.4	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	3.7 / 1.5	0	7.1 / 6.7

IC801	1	2	3	4	5	6	7	8	9	NOTE
TAPE PLY	2.0 / 0.6	0	2.0 / 2.0	0	0	13 / 13	13 / 13	3.1 / 2.9	8	
M SCAN	2.0 / 0.6	7.9 / 7.9	2.0 / 2.0	7.5 / 7.5	0	13 / 13	13 / 13	1.9 / 1.8	8	TAPE RUN
STOP	2.0 / 0.6	0	2.0 / 2.0	0	0	0	0	3.1 / 2.9	8	

	3	4	5	6	7	8
3 / 6	3.2	7.1	0	2.6	0.8 / 0.6	13 / 0.6

IC403, 404		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
TAPE PLAY	NR OFF	4.1 / 3.3	4.1 / 3.3	4.0 / 4.0	4.1 / 3.3	4.1 / 4.1	4.2 / 4.1	4.1 / 4.0	4.1 / 4.0	0	1.8 / 1.7	4.1 / 3.9	7.7 / 7.7	3.3 / 3.3	4.1 / 4.1	4.2 / 4.2	4.2 / 4.2	4.1 / 3.4	2.8 / 2.8
	NR ON	4.1 / 3.3	4.1 / 3.3	4.1 / 4.1	4.1 / 3.3	4.1 / 4.1	4.2 / 4.2	4.1 / 4.0	4.2 / 4.2	0	3.4 / 3.3	4.2 / 3.9	7.8 / 7.8	3.3 / 3.3	4.2 / 4.2	4.2 / 4.2	4.2 / 4.2	4.1 / 3.4	2.8 / 2.8
REC	NR OFF	4.1 / 3.3	4.1 / 3.3	4.0 / 4.0	4.1 / 3.3	4.1 / 4.1	4.2 / 4.2	4.1 / 4.0	4.1 / 4.0	0	1.8 / 1.7	4.1 / 3.9	7.7 / 7.7	3.3 / 3.3	4.1 / 4.1	4.2 / 4.2	4.2 / 4.2	4.1 / 3.4	0.6 / 0.6
	NR ON	4.1 / 3.3	4.1 / 3.3	4.1 / 4.1	4.1 / 3.3	4.1 / 4.1	4.2 / 4.2	4.1 / 4.0	4.2 / 4.2	0	3.4 / 3.3	4.2 / 3.9	7.8 / 7.8	3.3 / 3.3	4.2 / 4.2	4.2 / 4.2	4.2 / 4.2	4.2 / 3.4	0.6 / 0.6

	Q802 E	Q802 C	Q802 B	Q803 E	Q803 C	Q803 B	Q804 E	Q804 C	Q804 B	Q851 E	Q851 C	Q851 B	NOTE
TAPEPLY	0	0	0	0	0.15	0.4 / 0.1	0	3.1	0 / 0	0.34 / 0.34	1.0 / 1.0	0.9 / 0.9	
M SCAN	0	0	0.6	0	0	0.4 / 0.1	0	1.8 / 1.7	0.6 / 0.5	0.34 / 0.34	3.1 / 2.4	0.9 / 0.9	TAPE RUN
STOP	0	0	0.6	0	0	0.4 / 0.1	0	3.1	0	0.4 / 0.4	1.3 / 1.3	1.0	



Notes:

1. indicates positive B (+) power supply.
2. The signal pathes are indicated as follows:
   : TAPE PLAY
   : PHONO
   : REC
   : MIC
3. When replacing the parts in the darkened area ( ) and those marked with ⚠, be sure to use the designated parts to ensure safety.
4. This is the standard circuit diagram. The design and contents are subject to change without notice.

	Q301 E	Q301 C	Q301 B	Q302 E	Q302 C	Q302 B	Q308 E	Q308 C	Q308 B
PHONO	0	0	0.6	0	0	0.6	5.9	8	6.4
TAPE	0	0	0.6	0	6.0	0.2	5.8	8	6.4
TUNER	0	0	0.6	0	0	0.6	5.9	8	6.4
AUX	0	0	0.6	0	0	0.6	5.8	8	6.4
AUX REC	0	0	0.7	0	6.5	0	5.8	8	6.4

	Q309 E	Q309 C	Q309 B	Q310 E	Q310 C	Q310 B	Q311 E	Q311 C	Q311 B	Q312 E	Q312 C	Q312 B	Q313 E	Q313 C	Q313 B
PHONO	8.3	0	8.3	8.3	0	8.3	8.3	8.2	7.9	8.3	1.6	7.9	8.3	0.7	7.9
TAPE	8.3	0	8.3	8.3	0	8.3	8.3	0	7.9	8.3	1.6	7.9	8.3	8.2	7.9
FM	8.3	0	8.3	8.3	0	8.3	8.3	0	7.9	8.3	1.6	7.9	8.3	8.2	7.9
AM	8.3	0	8.3	8.3	0	8.3	8.3	0	7.9	8.3	1.6	7.9	8.3	0.7	7.9
AUX	8.3	0	8.3	8.3	0	8.3	8.3	0	7.9	8.3	1.6	7.9	8.3	0.7	7.9

	Q305 E	Q305 C	Q305 B	Q303,304 E	Q303,304 C	Q303,304 B	Q425 E	Q425 C	Q425 B
PHONO	0	0	0	0	0	0	6.2	7.4	5.8
TAPE	0	0	0	0	0	0	6.2	7.4	5.8
FM	0	0	0	0	0	0	6.2	7.4	5.8
AM	0.1	0	0	0	0	0	6.2	7.4	5.8
AUX	0	0	0	0	0	0	6.2	7.4	5.8

	Q415,416 E	Q415,416 C	Q415,416 B	Q417,418 E	Q417,418 C	Q417,418 B
PHONO	0	17.9	0	0.8	14.5	11.4
TAPE	0	17.9	0	0.8	14.5	11.4
FM	0.7	17.9	0	0.8	14.5	11.4
AM	0	7.8	0	0.8	4.4	1.3
AUX	0	7.8	0	0.8	4.4	1.3

	Q407,408 E	Q407,408 C	Q407,408 B	Q413,414 E	Q413,414 C	Q413,414 B
PHONO	0.24	15.9	0.83	0	7.9	0
TAPE	0.24	15.9	0.83	0	7.9	0
FM	0.24	5.7	0.69	0	7.9	0
AM	0.24	5.7	0.69	0	7.9	0
AUX	0.24	5.7	0.69	0	7.9	0

	Q429 E	Q429 C	Q429 B	Q430 E	Q430 C	Q430 B	Q403,404 E	Q403,404 C	Q403,404 B	Q405,406 E	Q405,406 C	Q405,406 B	Q409 E	Q409 C	Q409 B	NOTE
AUX	0	7.6	0	0	0	10.6	0	0	0	0	0	0	0	0	0	
REC	0	7.5	0	0	0	0.6	0	0	10.6	0	0	0.6	0	0	0.6	
REC PAUSE	0	7.8	0	0	3.6	0.1	0	0	0.6	0	0	0.6	0	0	0.4	
	0	7.8	0	0	0	10.7	0	0	0.6	0	0	0.6	0	0	0.3	
	0	7.8	0	0	0	0.7	0	0	0.6	0	0	0.6	0	0	0	

	Q421,422 E	Q421,422 C	Q421,422 B	Q423,424 E	Q423,424 C	Q423,424 B	NOTE
METAL	0	0	0.6	0	0	0.6	
CrO2	0	0	0.6	0	0	0	
NORMAL	0	0	0	0	0	0	
REC MUTE	0	0	0	0	0	0	NORMAL

	Q401,402 E	Q401,402 C	Q401,402 B	Q419,420 E	Q419,420 C	Q419,420 B
METAL	0	0	0.6	0	0	0
CrO2	0	0	0.6	0	0	0
NORMAL	0	0	0	0	0	0.06
REC MUTE	0	0	0	0	0	0

	15	16	17	18	19	20	21	22
	3.7	7.4	3.7	3.7	3.7	3.7	0	7.1
	3.7	7.4	1.5	1.5	1.5	1.5		6.7
	3.7	7.4	3.7	3.7	3.7	3.7	0	0.8
	3.7	7.4	1.5	1.5	1.5	1.5		0.8
	3.7	7.4	3.7	3.7	3.7	3.7	0	7.1
	3.7	7.4	1.5	1.5	1.5	1.5		6.7
	3.7	7.4	3.7	3.7	3.7	3.7	0	7.1
	3.7	7.4	1.5	1.5	1.5	1.5		6.7

IC801	1	2	3	4	5	6	7	8	9	NOTE
TAPE PLY	2.0 0.6	0	2.0 2.0	0	0	13 13	13 13	3.1 2.9	8	
M SCAN	2.0 0.6	7.9	2.0 2.0	7.5 7.5	0	13 13	13 13	1.9 1.8	8	TAPE RUN
STOP	2.0 0.6	0	2.0 2.0	0	0	0	0	3.1 2.9	8	

	13	14	15	16	17	18
	3.3	4.1	4.2	4.2	4.1	2.8
7	3.3	4.1	4.2	4.2	3.4	2.8
	3.3	4.2	4.2	4.2	4.1	2.8
8	3.3	4.2	4.2	4.2	3.4	2.8
	3.3	4.1	4.2	4.2	4.1	0.6
7	3.3	4.1	4.2	4.2	3.4	0.6
	3.3	4.2	4.2	4.2	4.2	0.6
8	3.3	4.2	4.2	4.2	3.4	0.6

	Q802 E	Q802 C	Q802 B	Q803 E	Q803 C	Q803 B	Q804 E	Q804 C	Q804 B	Q851 E	Q851 C	Q851 B	NOTE
TAPE PLY	0	0	0	0	0.15	0.4 0.1	0	3.1	0	0.34 0.34	1.0 1.0	0.9 0.9	
M SCAN	0	0	0.6	0	0	0.4 0.1	0	1.8 1.7	0.6 0.5	0.34 0.34	3.1 2.4	0.9 0.9	TAPE RUN
STOP	0	0	0.6	0	0	0.4 0.1	0	3.1	0	0.4 0.4	1.3 1.3	1.0	

16. Packing Materials and Part Numbers

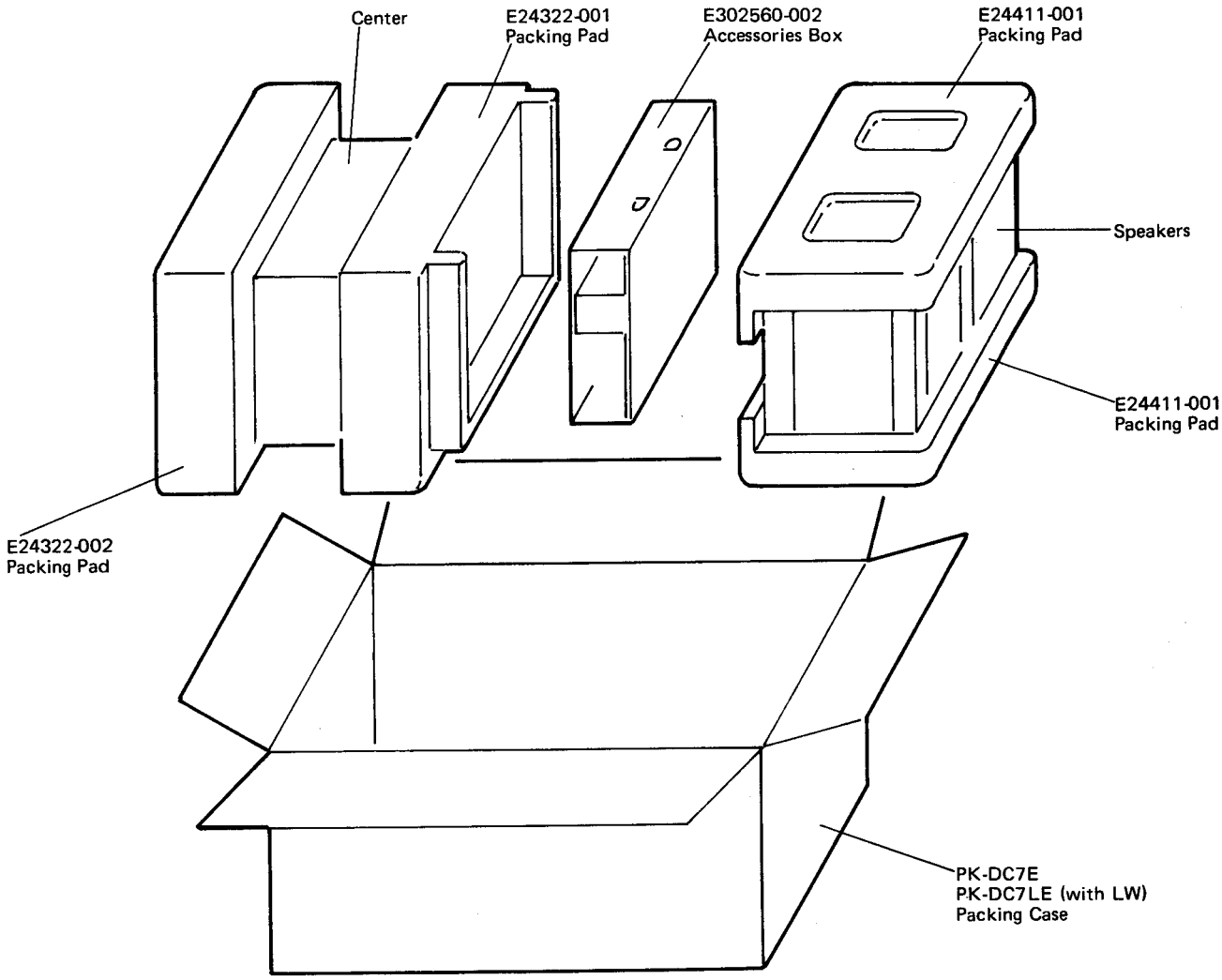


Fig. 49

17. Accessories List

Item No.	Description	U.S.A. & Canada	Europe & Australia	West Germany	U.K. (With LW)	U.S. Military Market & Other Countries
	Instruction Book	E30580-1121A	E30580-1121A	E30580-1121A	E30580-1121A	E30580-1121A
	Envelope	E300196-033	E300196-033	E300196-033	E300196-033	E300196-033
	EP Adaptor	E66329-002	E66329-002	E66329-002	E66329-002	E66329-002
	Envelope	E300196-032	E300196-032	E300196-032	E300196-032	E300196-032
	T.T. Covering	E302375-004	E302375-004	E302375-004	E302375-004	E302375-004
	FM Antenna	Y40546-001	Y40546-001	Y40546-001	Y40546-001	Y40546-001
	Envelope	QPGA008-02505	QPGA008-02505	QPGA008-02505	QPGA008-02505	QPGA008-02505
	Handle Unit	BH-DC7	BH-DC7	BH-DC7	BH-DC7	BH-DC7
	Envelope	QPGA011-03005	QPGA011-03005	QPGA011-03005	QPGA011-03005	QPGA011-03005
	Special Screw (for Handle Unit)	E69839-001	E69839-001	E69839-001	E69839-001	E69839-001
	Special Screw (for Speakers)	E69839-002	E69839-002	E69839-002	E69839-002	E69839-002
	Stopper (for Handle Unit)	E69838-003	E69838-003	E69838-003	E69838-003	E69838-003
	Power Cord ⚠	QMP1940-183	QMP3950-183 (QMP2530-200)	QMP3950-183	QMP9017-009BS	QMP7630-183
	Warranty Card	BT20048 (BT20025F)	(BT20029C)	BT20058	BT20013C	BT20048
	Safety Instruction Sheet	BT20044D (—)				BT20044D (for U)
	Service Information	BT20046 (—)				BT20046 (for U)

⚠ Safety Parts

18. Parts List with Specified Numbers for Designated Areas

Item No.	Description	U.S.A. & (Canada)	Australia	Europe & (West Germany)	U.K. (With LW)	U.S. Military Market & Other Countreis
	Front Panel Ass'y	EFP-DC7	EFP-DC7	EFP-DC7L	EFP-DC7L	EFP-DC7
	Battery Case	BC-DC7A	BC-DC7B	BC-DC7B	BC-DC7B	BC-DC7
	Tuner Circuit Board Ass'y	ENA-010A (")	ENA-010B	ENA-010C (ENA-010D)	ENA-010C	ENA-010A
	Audio Circuit Board Ass'y	TXX-412D (TXX-412B)	TXX-412C	TXX-412C	TXX-412FBS	TXX-412C
	Circuit Board (for Audio C. Board)	E10789-101	E10789-201	E10789-201	E10789-201	E10789-201
	Logic Circuit Board Ass'y	TXX-416B	TXX-416C	TXX-416C	TXX-416C	See table below
	AC Fuse Circuit Board	END-004	—	—	—	—
	AC Inlet ⚠	QMC0262-002 (QMC0262-001)	QMC0263-001	QMC0263-001	QMC0263-001BS	QMC0263-001
F001	Fuse ⚠	QMF51U1-2R5	QMF51A2-2R5L	QMF51A2-2R5L	QMF51A2-2R5LBS	QMF51A2-2R5L
F201	Fuse ⚠	QMF51U1-1R25S	QMF51A2-1R25L	QMF51A2-1R25L	QMF51A2-1R25LBS	QMF51A2-1R25L
F202	Fuse ⚠	QMF51U1-3R15S	QMF51U1-3R15S	QMF51U1-3R15S	QMF51U2-3R15SBS	QMF51U1-3R15S
F203	Fuse ⚠	QMF51U2-R50S	QMF51A2-R50L	QMF51A2-R50L	QMF51A2-R50LBS	QMF51A2-R50L
F204	Fuse ⚠	QMF51U2-1R0S	QMF51A2-1R0L	QMF51A2-1R0L	QMF51A2-1R0LBS	QMF51A2-1R0L
F205	Fuse ⚠	QMF51U2-R63S	QMF51A2-R63L	QMF51A2-R63L	QMF51A2-R63LBS	QMF51A2-R63L
	Pick up Ass'y	E302347-003	E302347-002	E302347-002	E302347-002	See table below
	Cartridge	MD1038Z	MD1041Z	MD1041Z	MD1041Z	"
	Stylus	DT-38	DT-41	DT-41	DT-41	"
	Barrier	E302746-001 (—)	E70414-001	E70414-001	E70414-001	E70414-001

⚠ : Safety Parts

In U.S. Military Market & Other Countries, the following four parts are each available in 2 types. When ordering, check the part number.

	TYPE 1	TYPE 2
Pick up Ass'y	E302347-003	E302347-002
Cartridge	MD1038Z	MD1041Z
Stylus	DT-38	DT-41
P.C. Board Ass'y	TXX-416B	TXX-416

JVC

VICTOR COMPANY OF JAPAN, LIMITED, TOKYO, JAPAN

Printed in Japan
3002-V

JVC

SERVICE MANUAL

MODEL
DC-7/DC-7L
PORTABLE STEREO
DISC CENTER

SUPPLEMENT

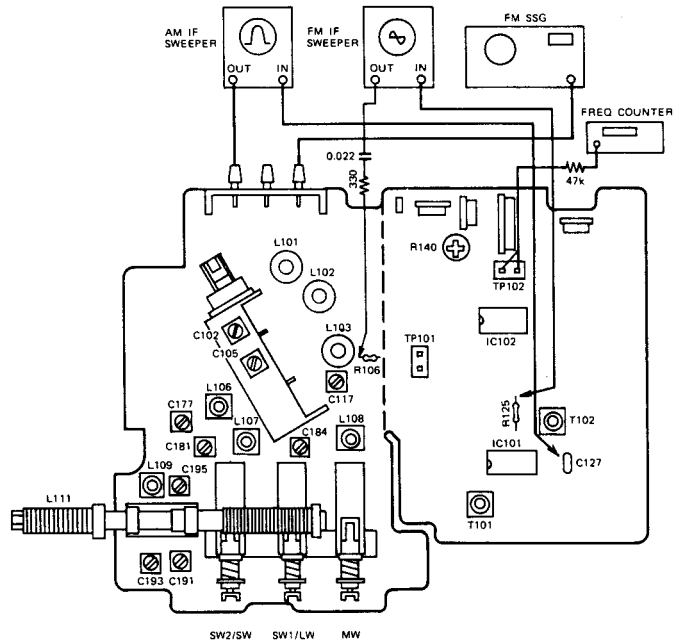
This service manual provides you with information of the change of parts on Tuner P.C. board and Audio P.C. board.
When using this service manual, refer to the original service manual (No. 2654 Feb. 1983) published previously.

No.2654C
Jul. 1983

A list of changed and/or added parts.

Item No.	Part Number			Description
	Old	New		
ENA-010	**Tuner P.C. board ass'y**			
D109	–	1S2222		Silicon diode
R102	QRD141J-471S	QRD141J-181S	(180 Ω)	Carbon resistor
R107	–	QRD141J-151S	(150 Ω)	Carbon resistor
R116	QRD141J-102S	QRD141J-152S	(1.5 kΩ)	Carbon resistor
R119	–	QRD141J-101S	(100 Ω)	Carbon resistor
R196	–	QRD141J-333S	(33 kΩ)	Carbon resistor
R197	QRD141J-100S	QRD141J-333S	(33 kΩ)	Carbon resistor
R198	–	QRD141J-333S	(33 kΩ)	Carbon resistor
C120	QCF31HP-223Z	QCF31HP-223Z	(50 V, 0.022 μF)	Ceramic capacitor
C129	QET61AM-476ZM	QET61EM-476ZM	(25 V, 47 μF)	Electrolytic capacitor
C136	QET61AM-107ZM	QET61CM-226ZM	(16 V, 22 μF)	Electrolytic capacitor
C142	QET51AM-227	QET51EM-227	(25 V, 220 μF)	Electrolytic capacitor
C151, 152	QET61EM-475ZM	QET61HM-475ZM	(50 V, 4.7 μF)	Electrolytic capacitor
C154	—	QCF21HP-223	(50 V, 0.022 μF)	Ceramic capacitor
C155	QET61AM-476ZM	QET61EM-476ZM	(25 V, 47 μF)	Electrolytic capacitor
C168 ~ 170	QET61HM-225ZM	QEB61HM-104Z	(50 V, 0.1 μF)	Electrolytic capacitor
C176	QCT25UJ-6ROZ	ECT05ZL-5RO	(50 V, 5 pF)	Ceramic capacitor
C194	QCS31HJ-470Z	QCS31HJ-390Z	(50 V, 39 pF)	Ceramic capacitor
C196	QCS31HJ-220Z	QCS31HJ-150Z	(50 V, 15 pF)	Ceramic capacitor
C185	–	QCT25RH-270Z	(50 V, 27 pF)	Ceramic capacitor
	–	EMB01YV-201		Antenna terminal (West Germany only)
	–	E03572-016		Antenna terminal (Other areas)
	E10847-001	E10847-003		Circuit board
TXX-412	**Audio P.C. board ass'y**			
Q204, 209	2SA965 (O, Y)	2SA733A (P, Q)		Silicon transistor (U.K. only)
R209 ~ 212	QRZ0051-2R2	QRD149J-2R2S		Carbon resistor
C249	QET51EM-106	QET51CM-106	(16 V, 10 μF)	Electrolytic capacitor
	E10789-201	E10789-202		Circuit board

Adjustment of tuner section



Note: After adjustment, confirm that the band cover is as follows: (for West Germany only)
FM: Lower 87.5 MHz ~ 300 kHz
Higher 108.0 MHz + 500 kHz

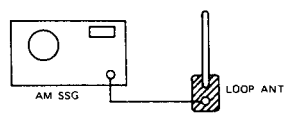


Fig. 29

FM section

1. FM IF

Connect a sweep generator as shown above, then adjust FM detection transformer T102 so that S-curve waveform is linear and symmetrical.

2. FM frontend

(1) Adjust FM OSC tuning coil L103 so that 88 MHz is received with the dial set to 88 MHz.
(2) Adjust FM OSC tuning trimmer C117 so that 108 MHz is received with the dial set to 108 MHz.
(3) Adjust FM RF tuning coils L101 and L102 to optimize sensitivity at 88 MHz.
(4) Adjust FM RF tuning trimmers C102 and C105 to optimize sensitivity at 108 MHz.

3. FM MPX section

Connect a frequency counter to test point TP102 (④ VCO, ⑤ GND), then adjust MPX VCO free-run frequency adjustment VR R140 so that the free-run frequency is 19 kHz. AUTO/MONO switch: MONO input signal at AUTO setting

AM section

1. AM IF

Adjust AM IF transformer T101 so that the IF waveform of the sweep generator is symmetrical and maximum.

2. MW frontend

(1) Adjust MW OSC tuning coil L108 so that 600 kHz is received with the dial set to 600 kHz.
(2) Adjust MW OSC tuning trimmer C184 so that 1400 kHz is received with the dial set to 1400 kHz.
(3) Adjust bar antenna coil L111 at its MW side to optimize sensitivity at 600 kHz.
(4) Adjust MW antenna tuning trimmer C177 to optimize sensitivity at 1400 kHz.

3. LW frontend (DC-7L only)

(1) Adjust LW OSC tuning coil L107 so taht 150 kHz is received with the dial set to 150 kHz.
(2) Adjust LW OSC tuning trimmer C181 so that 350 kHz is received with the dial set to 350 kHz.
(3) Adjust bar antenna coil L111 at its LW side to optimize sensitivity at 150 kHz.
(4) Adjust LW antenna tuning trimmer C181 to optimize sensitivity at 350 kHz.

4. SW1 frontend (DC-7 only)

(1) Adjust SW1 OSC coil L107 so that 2.3 MHz is received with the dial set to 2.3 MHz.
(2) Adjust SW1 OSC trimmer C181 so that 6 MHz is received with the dial set to 6 MHz.
(3) Adjust bar antenna coil L111 at its SW side to optimize sensitivity at 2.3 MHz.
(4) Adjust SW antenna tuning trimmer C181 to optimize sensitivity at 6 MHz.

5. SW2 (DC-7 only)/SW (DC-7L only) frontend

(1) Adjust SW2/SW OSC tuning coil L106 so that 6 MHz is received with the dial set to 6 MHz.
(2) Adjust SW2/SW OSC tuning trimmer C177 so that 18 MHz is received with the dial set to 18 MHz.
(3) Adjust SW2/SW antenna coil L109 to optimize sensitivity at 6 MHz.
(4) Adjust SW2/SW antenna tuning trimmer C195 to optimize sensitivity at 18 MHz.

Band	Tuning scale setting of recd. freq.	Adj. point	
		Freq. adj.	Sens. opt.
FM	88 MHz 108 MHz	L103 C117	L101, L102 C102, C105
MW	600 kHz 1400 kHz	L108 C184	L111 MW side C177
LW (DC-7L only)	150 kHz 350 kHz	L107 C181	L111 LW side C181
SW1 (DC-7 only)	2.3 MHz 6 MHz	L107 C181	L111 SW side C181
SW2 (DC-7 only) SW (DC-7L only)	6 MHz 18 MHz	L106 C177	L109 C195

JVC

SERVICE MANUAL

MODEL
DC-7/DC-7L
PORTABLE STEREO
DISC CENTER

SUPPLEMENT
(TROUBLESHOOTING)

When using this service manual, refer to the DC-7 service manual (No.2654 Feb.1983) previously published.

No.2654B
JUN.1983

1. How to detect abnormalities in ALC P.C. board(TXX-534)

(Apply 1KHz sine wave signal from AUX terminals)
(1) ALC input point check
Flatwire (FW 302) 2 : L channel
3 : R channel
(2) ALC output point check
Flatwire (FW301) 4 : L channel
5 : R channel
If 1KHz signal is confirmed at all points in above (1) and (2), no abnormality is found and ALC board need not be removed.

2. Points Where cassette play signals appear

(1) L channel
Head → IC401(pin③) → R411 → R425 → IC403(pin②) → IC403(pin⑮)
(2) R channel
Head → IC401(pin⑧) → R412 → R426 → IC404(pin②) → IC404(pin⑮)

3. Problems caused when fixing the back cover

Flatwire may be caught between the hook on the left side of the back cover and the side plate. If caught, FM stereo indicator may be on at all time or tuner may not function properly.

4. Troubleshooting

4-(1) Cassette section

Troubles	Cheack points
1. No bias	(L407), (Q429), (pattern between C494 and Q429) (S403), (wire touch at beat cut switch)
2. High bias	(L407)
3. Small bias fluctuation	(L407)
4. No 1, 2 beat cut swich	(Shield wire "white" for beat cut switch), (short circuited between terminals of S401)
5. Unbalance (left, right) with metal tape switch is pressed	(L405), (L406)
6. Unbalance (left, right) during recording and play	(R428), (Head)
7. No recording on L channel	(L405)
8. No recording	(S403), (FW302 pin④), (P301 pin⑦⑧ touch), (P301 pin②③ touch
9. Blown fuse when recording switch is pressed to on	(FW401 pin①② touch)

4-(1) Cassette section

Troubles	Cheack points
10. Loud sound when "CrO_2" switch is pressed	(FW404 pin④⑤ short circuit), (D402 polarity reversed)
11. No operation	(FW304 faulty soldering), (FW305 faulty wiring)
12. ALC no operation	(Q407), (Q408), (P301), (C495), (C496), (Q304 emitter and Q303 collector touch) (FW302 faulty wiring), (FW302 pin②), (W570 and FW301 pin⑥ touch)
13. Does not switch to cassette	(Q308), (R357), (R353), (pattern between 357 and FW306), (FW303 pattern)
14. No sound during PLAY	(S403), (R410), (R425), (L401), (L402), (IC305), (IC401)
15. No high range sound during PLAY	(C403), (C404), (Head)
16. Auto stop during PLAY	(Hall element), (R851), (counter chassis bent)
17. Unbalance (left, right) at initial PLAY	(Q404 emitter and Q403 base touch)
18. Distortion	(FW402 pin②③ touch)
19. Tape noise	(C305), (C306)
20. Tape indicator off	(IC305), (IC301)
21. Recording indicator off	(Recording LED)
22. Reverse phase for cassette only	(Head wire)
23. No Dolby effect	(IC302)
24. Does not auto stop	(D413 polarity reversed), (Hall element), (J301 pin②③ touch), (P301 pin⑤⑥ touch)
25. Tuner does not record	(S802)
26. Motor quick rotation	(Motor)
27. Noise loud at Dolby on	(IC403)
28. Blown fuse when REC MUTE switch is pressed to on.	(J301 pin⑧⑨ touch)
29. Auto stop during recording	(S802)
30. Azimuth low	(Head)
31. Non-automatic music scanning	(J301 pin⑦⑧ touch)
32. Counter does not return to "0"	(Counter)
33. REC MUTE does not function	(D412), (D411)
34. Does not pause	(Pause switch spring)

4-(2) Tuner section

Troubles	Check points
1. Source cannot be selected from AM(FM) to FM(AM)	(R366 and R369 touch)
2. Source cannot be selected to either AM or FM from other source	(C357 and jumper "W544" touch)
3. AM, FM, tuning indicator off	(FW407)
4. FM indicator off	(LED "D304")
5. Stereo indicator on at all time	(FW407 faulty wiring)
6. AM no sound	(FW407 faulty wiring), (FW102 pin②③ touch)
7. Does not switch into FM	(FW306 pin①), (J103 attachment)
8. FM no sound	(FW407 pin③), (IC102)
9. AM indicator and FM stereo indicator on when switched to FM	(Jumper "W541 and W580" touch)
10. Tuning indicator faintly on (orange)	(Tuning LED)
11. Tuner does not operate at 10% lower voltage than usual	(IC305)
12. Distortion when receiving FM stereo broard casting	(IC102)
13. FM MUTE malfunction	(Q109)

4-(3) Turntable section

Troubles	Check points
1. Phono indicator off	(IC305), (LED), (D202)
2. Does not switch to phono	(IC301)
3. Phono indicator on at all time	(Q311)
4. Turntable does not function	(FW307 pin①), (FW308 "J201" touch)
5. Wave form fluctuates on R channel	(C302 polarity reversed)
6. UP/DOWN and START reversed	(FW307 faulty wiring)
7. Does not switch UP/DOWN	(FW307 wire cut)
8. Tonearm slant down	(Tonearm shielding board bent)
9. Noise when moving tonearm	(Worm gear)
10. Platter does not turn	(Contact spring)
11. Tonearm down slow	(Pick up ASS'Y spring attachment)
12. Platter continuously turns	(P602 attachment)
13. Return at UP	(FW308 touches J201 terminal)
14. Motor boarding	(C242 polarity reversed)
15. 30cm record is not selected automatically	(D701 attachment)
16. Tonearm does not return when motor board is pushed	(Leaf spring switch "S001")

4-(4) Audio section and others

Troubles	Check points
1. L channel no sound	(R349), (P201 pin③ wire "orange wire" and jumper "W515" touch), (P702), (IC201), (FW406 pin④⑤ touch), (FW301 pin②③ touch)
2. R channel no sound	(C348 pattern), (FW306 Flatwire caught between back cover and side plate), (R350), (J203 pin③ pattern cut), (J206 pin①② touch)
3. MIC no sound	(Microphone volume "R531"), (microphone terminal), (J404 pin④ and FW406 pattern)
4. AUX L channel no sound	(R301)
5. AUX no sound	(FW306 pattern)
6. No-sound on INST. (musical instrument terminal)	(INST. terminal)
7. High range (20kHz) wave form irregular	(IC304)
8. Unbalance (left, right) at HIGH BOOST ON position	(FW404 pin① faulty soldering)
9. Output MONO	(J206 pin④)
10. Loud hum at POWER ON	(D206)
11. Noise when headphones inserted	(C220 polarity reversed)
12. Poor distortion rate	(R209), (C211), (IC201), (IC202)
13. Sound on when headphones inserted	(TXX-417 P. C. board pattern touch)
14. R channel noise when switching source	(C320 polarity reversed)
15. No-muting effect when source selector switch is selected	(Q303), (IC305 pin⑫)
16. Malfunction of source selector	(FW306 faulty wiring)
17. Picture monitor lamp off	(FW305 faulty wiring), (W580 missing)
18. Sound comes out slightly at volume minimum position	(Main VR"R350"), (J203 faulty soldering)
19. Picture monitor does not change	(FW310 attachement), (C307 polarity reversed)
20. AUX indicator on	(IC305)
21. Sound distortion at 10% lower voltage than usual	(IC201)
22. L. R. output reversed	(FW203 reversed)
23. Oscillation	(IC201), (IC202)

5. P.C. Board Locations